Service Manual

ViewSonic VX724-1

Model No. VS10049

17” Color TFT LCD Display

(VX724-1_SM Rev. 1b Jun. 2006)

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Revision History

Revision	SM Editing Date	ECR Number	Description of Changes	Editor
1a	06/06/05		Initial Release	A. Lu
1b	06/23/06	VS-E060083	updated RSPL,BOM,EPL,PPL	Jamie C.

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1. Precautions and Safety Notices

1. Appropriate Operation

(1) Turn off the product before cleaning.
(2) Use only a dry soft cloth when cleaning the LCD panel surface.
(3) Use a soft cloth soaked with mild detergent to clean the display housing.
(4) Use only a high quality, safety approved AC/DC power cord.
(5) Disconnect the power plug from the AC outlet if the product will not be used for a long period of time.
(6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
(7) Do not touch the LCD panel surface with sharp or hard objects.
(8) Do not place heavy objects on the LCD display, video cable, or power cord.
(9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
(10) Do not operate the product under the following conditions:
- Extremely hot, cold or humid environment.
- Areas containing excessive dust and dirt.
- Near any appliance generating a strong magnetic field.
- In direct sunlight.

2. Caution

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

3. Safety Check

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.

4. LCD Module Handling Precautions

4.1 Handling Precautions

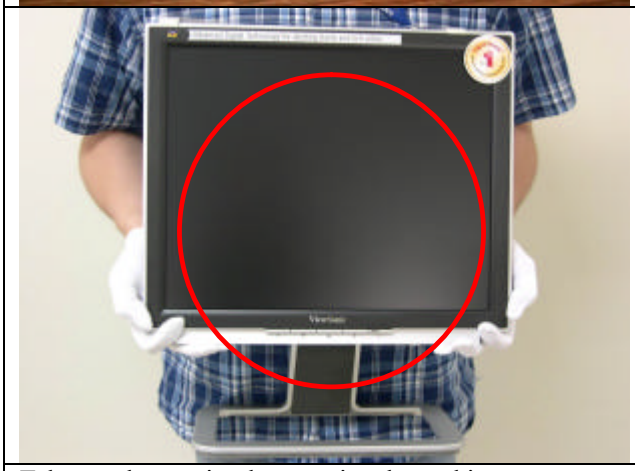
(1) Since front polarizer is easily damaged, pay attention not to scratch it.
(2) Be sure to turn off power supply when connecting or disconnecting input connector.
(3) Wipe off water drops immediately. Long contact with water may cause discoloration or spots.
(4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
(5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
(6) Since CMOS LSI is used in this module, take care of static electricity and ensure human earth when handling.
(7) Do not open or modify the Module Assembly.
(8) Do not press the reflector sheet at the back of the module in any direction.
(9) In the event that a Module must be put back into the packing container slot after it was taken out of the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
(10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate or tilt the Interface Connector of the TFT Module.

(11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist or bend the TFT Module even momentarily. When designing the enclosure, it should be taken into consideration that no bending/twisting forces may be applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.

(12) The cold cathode fluorescent lamp in the LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

(13) The LCD module contains a small amount of materials having no flammability grade. The LCD module should be supplied with power that complies with the requirements of Limited Power Source (IEC60950 or UL1950), or an exemption should be applied for.

(14) The LCD module is designed so that the CCFL in it is supplied by a Limited Current Circuit (IEC60950 or UL1950). Do not connect the CCFL to a Hazardous Voltage Circuit.

Correct methods :	Incorrect Methods :
Only touch the metal frame of the panel or the front cover of the monitor. Do not touch the surface of the polarizer .	If the surface of the panel is pressed by fingers, this may cause "MURA."
	
Take out the monitor by grasping the cushion.	If the monitor is removed by grasping the LCD panel, that may cause "MURA."

Correct Methods :	Incorrect Methods :
Place the monitor on a clean & soft foam pad .	If the monitor is placed on foreign objects, that could scratch the surface of the panel.

2. Specification

GENERAL SPECIFICATION

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 70%, Brightness = 100%

VIDEO INTERFACE

Analog Input Connector	DB-15 (Analog), refer the appendix A
Digital Input Connector	DVI-I (Digital), refer the appendix B
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector DB-15 Pin out	Compliant DDC 2B
Video Signals	1. Video RGB (Analog) Separate, Composite, and Sync on Green 2. TMDS (Digital)
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
DDC 1/2B	Compliant with Revision 1.3
Sync Compatibility	Separate Sync, Composite Sync, SOG
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350*, 640 x 480, 720 x 400* (640 x 400*), 800 x 600, 832 x 624, 1024 x 768, 1152 x 864, 1152 x 870, 1280 x 720, 1280 x 1024 * The image vertical size might not be full screen, but the image vertical position should be at the center.
Exclusions	Not compatible with interlaced video

POWER SUPPLY

Internal Power Supply	Part Number: FSP035-1PI01
Input Voltage Range	90 TO 264 VAC
Input Frequency Range	47.5 TO 63 HERTZ
Short Circuit Protection	Output can be shorted without damage
Over Current Protection	5.0 A typical at 12.0 VDC
Leakage Current	3.5mA (Max) at 254VAC / 60Hz
EFFICIENCY	65 % typical at 115VAC Full Load
Fuse	Internal and not user replaceable
Power Dissipation	32 Watts (typ)
Max Input AC Current	1.0 Arms @ 90VAC, 0.6 Arms @265VAC
INRUSH CURRENT (COLD START)	60 A @ 120VAC
Power Supply Cold Start	Shall start and function properly when under full load, with all combinations of input voltage, input frequency, and operating temperature
Power Supply Transient Immunity	Shall be able to withstand an ANSI/IEEE C62.41-1980 6000V 200 ampere ring wave transient test with no damage
Power Supply Line Surge Immunity	Shall be able to withstand 1.5 times nominal line voltage for one cycle with no damage
Power Supply Missing Cycle Immunity	Shall be able to function properly, without reset or visible screen artifacts, when ½ cycle of AC power is randomly missing at nominal input
Power Supply Acoustics	The power supply shall not produce audible noise that would be detectable by the user. Audible shall defined to be in compliance with ISO 7779 (DIN EN27779:1991) Noise measurements of machines acoustics. Power Switch noise shall not be considered
US Type Power Cable	Separate 3-prong NEMA 5-15P type plug. Length = 1.8m. Connects to display. Color = Black
European Type Power Cable	Schuko CEE7-7 type plug. Length = 1.8m, Connects to display. Color = Black
CCC Type Power Cable	Separate 3-prong type plug. Length = 1.8m. Connects to display. Color = Black
PSE Type Power Cable	Separate 2-prong NEMA 1-15P type plug. Length = 1.8m. Connects to display. Color = Black
Power Saving Operation(Method)	VESA DPMS Signaling
Power Consumption	ON Mode < 35 W (max) / 32 W (typ) Active Off < 1 W
Recovery Time	On Mode = N/A, Active Off < 3 sec

ELECTRICAL REQUIREMENT

Horizontal / Vertical Frequency

Horizontal Frequency	30 – 82 KHZ
Vertical Refresh Rate	50 – 75 HZ
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

Timing Table

Item	Timing	Analog	Digital
1	640 x 350 @ 70Hz, 31.5kHz	Yes	Yes
2	640 x 400 @ 60Hz, 31.5kHz	Yes	Yes
3	640 x 400 @ 70Hz, 31.5kHz	Yes	Yes
4	640 x 480 @ 50Hz, 24.7kHz	Yes	No
5	640 x 480 @ 60Hz, 31.5kHz	Yes	Yes
6	640 x 480 @ 67Hz, 35.0kHz	Yes	Yes
7	640 x 480 @ 72Hz, 37.9kHz	Yes	Yes
8	640 x 480 @ 75Hz, 37.5kHz	Yes	Yes
9	640 x 480 @ 85Hz, 43.27kHz	No	No
10	720 x 400 @ 70Hz, 31.5kHz	Yes	Yes
11	800 x 600 @ 56Hz, 35.1kHz	Yes	Yes
12	800 x 600 @ 60Hz, 37.9kHz	Yes	Yes
13	800 x 600 @ 75Hz, 46.9kHz	Yes	Yes
14	800 x 600 @ 72Hz, 48.1kHz	Yes	Yes
15	800 x 600 @ 85Hz, 53.7kHz	No	No
16	832 x 624 @ 75Hz, 49.7kHz	Yes	Yes
17	1024 x 768 @ 60Hz, 48.4kHz	Yes	Yes
18	1024 x 768 @ 70Hz, 56.5kHz	Yes	Yes
19	1024 x 768 @ 72Hz, 58.1kHz	Yes	Yes
20	1024 x 768 @ 75Hz, 60.0kHz	Yes	Yes
21	1024 x 768 @ 85Hz, 68.67kHz	No	No
22	1152 x 864 @ 75Hz, 67.5kHz	Yes	Yes
23	1152 x 870 @ 75Hz, 68.7kHz	Yes	Yes
24	1280 x 1024 @ 60Hz, 63.4kHz	Yes	Yes
25	1280 x 1024 @ 75Hz, 79.97kHz	Yes	Yes
26	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes	Yes

Primary Presets

1280x1024 @ 60Hz

User Presets

Number of User Presets (recognized timings) Available: 10 presets total in FIFO configuration

Changing Modes

- Maximum Mode Change Blank Time for image stability : 3 seconds (Max), excluding “Auto Image Adjust” time
- Under DOS mode (640 x 350, 720 x 400 & 640 x 400), it should recall factory setting when execute “Auto I mage Adjust”
- The monitor needs to do “Auto Image Adjust” the first time a new mode is detected (see section “0-Touch™ Function Actions”)

TFT LCD PANEL

Panel Characteristics:

1st Source Panel	AUO M170EG01 V8
Type	TN type with LVDS interface
Active Size	337.9 (H) x 270.3 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.264 mm
GLASS TREATMENT	Anti Glare (Hard coating 3H)
# OF BACKLIGHTS	4 CCFL edge-light (2 top / 2 bottom)
BACKLIGHT LIFE	50,000 Hours (Typ) / 40,000 Hours (Min)
Luminance – Condition: CT = 6500K, Contrast = Max, Brightness = Max	300 cd/m2 (Typ after 30 minute warm up) 240 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	80% (typ), 75% (min) MIN LUMINANCE IN 9 POINTS/ MAX LUMINANCE IN 9 POINTS
Contrast Ratio	500:1 (Typ), 300:1 (Min)
Color Depth	16 million colors (x bit panel)
Viewing Angle (Horizontal)	@ CR>10 @ CR>5 Typical: 140º Typical: 160º MINIMUM: 120º M INIMUM: 140º
VIEWING ANGLE (VERTICAL)	@ CR>10 @ CR>5 Typical: 130º Typical: 160º Minimum: 110º Minimum: 140º
Response Time 10%-90% @ Ta=25°C	Without OD Board (on/off) Tr = 6ms,Tf = 2ms Total = 8ms (typ) Tr = 9ms,Tf = 4ms Total = 13ms (max) With OD Board (on/ off) Tr = 3.9ms,Tf = 1.5ms Total = 5.4ms (typ) With OD Board (gray –gray) Total = 4 ms
Panel Defects	Please see Panel Quality Specifications.

2ND Source Panel	QDI QD17EL0709
Type	TN type with LVDS interface
Active Size	337.9 (H) x 270.3 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.264 mm
GLASS TREATMENT	Anti Glare (Hard coating 3H)
# OF BACKLIGHTS	4 CCFL edge-light (2 top / 2 bottom)
BACKLIGHT LIFE	50,000 Hours (Typ) / 40,000 Hours (Min)
Luminance (Center) – Condition: CT = 6500K, Contrast = Max, Brightness = Max	260 cd/m2 (Typ after 30 minute warm up) 200 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	Dw = 1.25 (typ), 1.33 (max) dw = Max luminance (of 9 points)/ Min luminance (of 9 points)
Contrast Ratio	500:1 (typ), 300:1 (min)
Color Depth	16.2 million colors (6+2 bit panel)
Viewing Angle (Horizontal)	@ CR>10 @ CR>5 Typical: 140º Typical: 160º Minimum: 120º Minimum: 140º
VIEWING ANGLE (VERTICAL)	@ CR>10 @ CR>5 Typical: 125º Typical: 145º Minimum: 105º Minimum: 125º
Response Time 10%-90% @ Ta=25°C	Without OD Board (on/off) Tr = 2ms,Tf = 6ms Total = 8ms (typ) Total =13ms(max) With OD Board (on/ off) Tr = 1.4ms,Tf = 5.3ms Total = 6.7ms (typ) With OD Board (gray –gray) Total = 4 ms
Panel Defects	Please see Panel Quality Specifications.

3rd Source Panel	QDI QD17EL0711
Type	TN type with LVDS interface
Active Size	337.9 (H) x 270.3 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.264 mm
GLASS TREATMENT	Anti Glare (Hard coating 3H)
# OF BACKLIGHTS	4 CCFL edge-light (2 top / 2 bottom)
BACKLIGHT LIFE	50,000 Hours (Typ) / 40,000 Hours (Min)
Luminance (Center) – Condition: CT = 6500K, Contrast = Max, Brightness = Max	270 cd/m2 (Typ after 30 minute warm up) 220 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	Dw = 1.25 (typ), 1.33 (max) dw = Max luminance (of 9 points)/ Min luminance (of 9 points)
Contrast Ratio	600:1 (typ), 400:1 (min)
Color Depth	16.2 million colors (6+2 bit panel)
Viewing Angle (Horizontal)	@ CR>10 @ CR>5 Typical: 140º Typical: 160º Minimum: 120º Minimum: 140º
VIEWING ANGLE (VERTICAL)	@ CR>10 @ CR>5 Typical: 125º Typical: 145º Minimum: 105º Minimum: 125º
Response Time 10%-90% @ Ta=25°C	Without OD Board (on/off) Tr = 2ms,Tf = 6ms Total = 8ms (typ) Total =13ms(max) With OD Board (on/ off) Tr = 1.4ms,Tf = 5.3ms Total = 6.7ms (typ) With OD Board (gray –gray) Total = 4 ms
Panel Defects	Please see Panel Quality Specifications.

IMAGE PERFORMANCE

Factory Defaults

Item	Defaults	Item	Defaults
Contrast	70%	OSD H. Position	50%
Brightness	100%	OSD V. Position	50%
Color Temperature	6500K	OSD Time Out	15 Sec
Sharpness	25%	OSD Background	On
720x400/640x400	720x400	Resolution Notice	Enabled

Luminance

Lv (Max) – Condition: Contrast = 100% Brightness = 100% Color Temperature = 6500K	Same as the Luminance in section 4-7 “TFT LCD PANEL”
Lv (Def) – Condition: Contrast = Default Brightness = Default Color Temperature = 6500K	Lv (Def) / Lv (Max) x 100% ≧ 85%

Display Size

Horizontal Display Size, Primary Preset	Full Screen
Vertical Display Size, Primary Preset	Full Screen

Saturation

Contrast = Default Brightness = Default TEST PATTERN = 32-GRAY	No visible saturation
Contrast = 100% Brightness = 100% Test pattern = 32-gray	6~8 level saturation

Preset Color Temperatures

SRGB	It should meet IEC 61966-2-1 (1999-10) standard
Preset 1 9300K CCT (Max) = 10250K CCT (Min) = 8500K	Wx= 0.283 +/- 0.02 Wy= 0.298 +/- 0.02
Preset 2 6500K (Primary) CCT (Max) = 6950K CCT (Min) = 6100K	Wx= 0.313 +/- 0.02 Wy= 0.329 +/- 0.02
Preset 3 5400K CCT (Max) = 5915K CCT (Min) = 4935K	Wx= 0.335 +/- 0.02 Wy= 0.350 +/- 0.02
Preset Color Temperature Adjustability	Each color preset shall be adjustable. Red, Green, and Blue shall be individually controlled.

Video Cards Compatibility

Peaking Performance : Peaking is not adjustable

Raster Artifacts

- Video Artifacts : No visible streaking, sag, or smearing artifacts when driven by the specified video cards in the primary mode and after user adjustment to best condition
- Power Supply, and Grounding Artifacts : No visible artifacts in any specified video mode within the horizontal or vertical frequency range of the monitor
- Temperature Drift : Image shall not drift or lose fine-tune adjustment

MECHANICAL

Dimension (Desktop)

Width	388 mm (15.3 inch)
Height	438 mm (17.2 inch)
Depth	176 mm (6.9 inch)
Monitor Weight	5 kg / 11 lbs

Dimension (Head Only / Wall Mount)

Width	388 mm (15.3 inch)
Height	332 mm (13.1 inch)
Depth	62 mm (2.4 inch)
Monitor Weight	3.5 kg / 7.7 lbs

Ergonomics

Tilt Up	From 0º up to ≧20º
Tilt Down	From 0º down to -3º ~ -5 º

Mechanical Specifications

- Screen Printed Parts : Artwork shall be provided by ViewSonic. The ViewSonic Bezel Graphics Specification, VSC_S_299 v.1d (2003) controls logo position
- Bird Logo : The ViewSonic Bird Logo Plate Specification, VSC_S_286 v.1b controls bird logo position
- Molded Plastic : Workmanship shall be inspected according to the ViewSonic Molded Plastic Parts Specification, VSCMPPSPEC001 v.1b
- Head Tilt Specification : In order to control the visible tilt of the LCD head, all units must have less than 1.5mm difference in height between the lower center and left / right corner of the bezel
- Bezel Gap Specification: The max. gap to the panel glass shall be less than 1.0 mm
- Bezel / Speaker Cover Gap : The max. gap between the bottom of the front bezel and the top of the speaker cover shall be less than 1.2 mm. The gap deviation must be less than 0.3mm
- External Jumpers : There shall be no external jumpers allowed
- Panel Preload Pressure :The LCD panel shall not experience any preload pressure when mounted to the bezel causing image degradation
- Front Panel Buttons : Tactile
- Button Alignment : The gap clearance between the buttons and the bezel surface shall be uniform
- Cold Cathode Fluorescent Tubes (CCFT) Cables : Cables between inverter and CCFT shall not have any direct contact to any cabinet surface or opening exposing users to the risk of electric shock. CCFT cables shall be properly routed internally to prevent them from straying to other areas within the monitor
- Sheet Metal Parts : All sharp edges of sheet metal parts that have the possibility of coming into contact with wire harnesses, flexible flat cables (FFCs), CCFT cables shall be covered with felt tape to protect the cable's insulation from being damaged. If felt tape is not used, then the edges of the sheet metal shall be machined smooth to prevent wiring insulator damage

Tilt/Swivel Base Mechanical Interface

The LCD monitor shall be in compliance with the most current revision of the VESA "Flat Panel Monitor Physical Mounting Interface" Standard, "FPMPMI Standard"

PACKAGING

Package Specifications

ViewSonic Packaging Specification	The "Top Level Assembly" shall meet the ViewSonic Corporation Packaging Specification, VSCPACSPEC003
Ink	The ink shall not rub off after a suitable drying time.
Multiple Trips	The carton shall withstand 10 trips by any combination of air, rail, land, or sea transportation.
Shipping Carton Type	One piece construction with double wall, 1.08 Kg
Shipping Carton Handholds	Yes, on side of carton
Poly form	EPS, 210g
Accessory plastic bags	PE-LD, 3 g
Plastic handle	PE-plastic, 20g (on the top side of carton)
PE bag (covers monitor)	PE-LD, 5 g
Width / Height / Depth	456mm (17.9") / 529mm (20.8") / 227mm (8.9")
Gross Weight	7 kg (15.4 lb)
Pallet (for Europe)	Poplar, 21 Kg
Pallet (for others)	Fumigation wood, 21 Kg
# units per Pallet	20/40 (air/sea)
40' Container Loading, Palletized	1040 pieces

Vibration Test

- Vibration Frequency : 1 – 200 Hz
- Acceleration : 1.14 G RMS
- Sweep Time : 1 oct. / min
- Test Time : 60 min per axis, total 3 axis / 6 main face

  -Vibration Test Data shall be submitted for approval to ViewSonic before Mass Production

Drop Test (100G)

- Weak Corner : 76.2 cm
- Six Faces : 76.2 cm
- 3 Edges Radiating From Weak Corner : 76.2 cm
- Drop Test Data shall be submitted for approval to ViewSonic before Mass Production

ENVIRONMENTAL

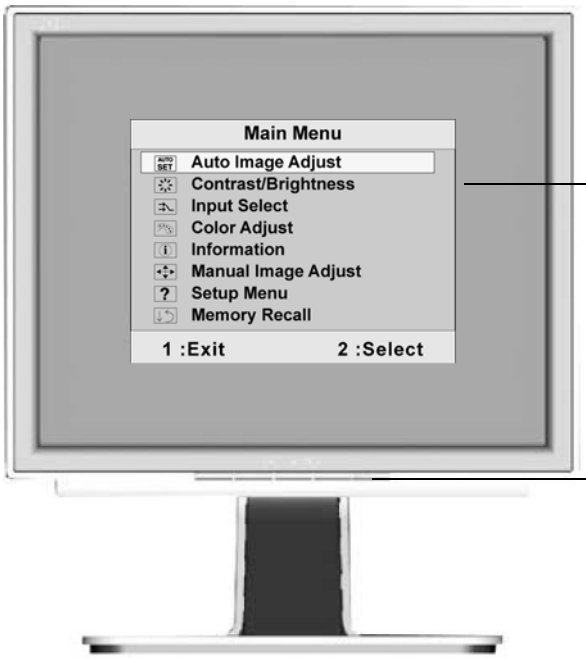
- Operating Temperature : 0°C to +40°C
- Storage Temperature : -20°C to +60°C
- Operating Relative Humidity : 20% to 90% RH Non-Condensing
- Storage Relative Humidity : 5% to 90% RH Non-Condensing
- Operating Altitude : 0 to +3,000 meters

  -Storage Altitude : 0 to +12,000 meters

3. Front Panel Function Control Description

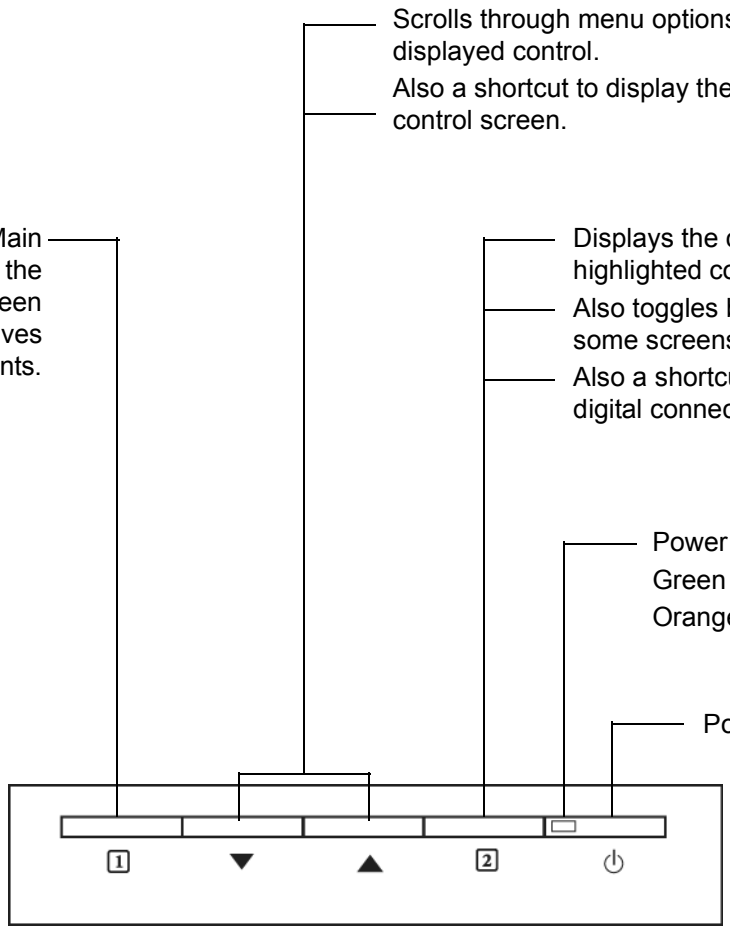
Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OSD controls which display on the screen. The OSD controls are explained at the top of the next page and are defined in "Main Menu Controls" on page 17.



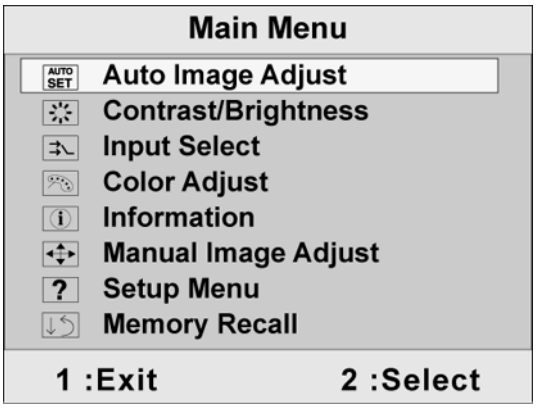
Main Menu
with OSD controls

Front Control Panel
shown below in detail


Scrolls through menu options and adjusts the displayed control.
Also a shortcut to display the Contrast adjustment control screen.
Displays the Main Menu or exits the control screen and saves adjustments.
Displays the control screen for the highlighted control.
Also toggles between two controls on some screens.
Also a shortcut to toggle analog and digital connection.
Power light
Green = ON
Orange = Power Saving
Power On/Off
1
2

Do the following to adjust the display setting:

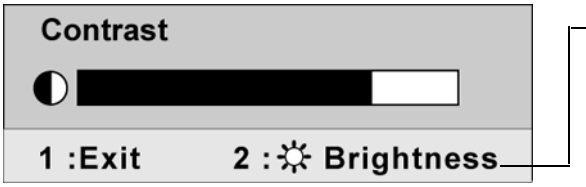
1. To display the Main Menu, press button [1].



NOTE: All OSD menus and adjustment screens disappear automatically after about 30 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2. To select a control to adjust, press▲or▼to scroll up or down in the Main Menu.

3. After the desired control is selected, press button [2]. A control screen like the one shown below appears.



The line at the bottom of the screen shows the current functions of buttons 1 and 2: Exit or select the Brightness control.

4. To adjust the setting, press the up▲or down▼buttons.

5. To save the adjustments and exit the menu, press button [1] *twice*.

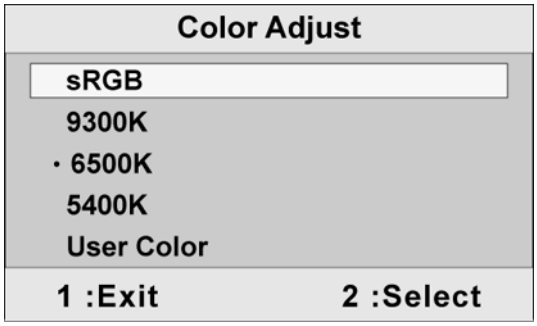
The following tips may help you optimize your display:

- Adjust the computer's graphics card so that it outputs a 1280 x 1024 @ 60Hz video signal to the LCD display. (Look for instructions on "changing the refresh rate" in the graphics card's user guide.)
- If necessary, make small adjustments using H. POSITION and V. POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

Main Menu Controls

Adjust the menu items shown below by using the up▲and down▼buttons.

Control	Explanation
AUTO SET	**Auto Image Adjust** automatically sizes, centers, and fine tunes the video signal to eliminate waviness and distortion. Press the [2] button to obtain a sharper image. **NOTE:** **1.** Auto Image Adjust works with most common video cards. If this function does not work on your LCD display, then lower the video refresh rate to 60 Hz and set the resolution to its pre-set value. **2.** The Auto Image Adjust and most Manual Image Adjust functions are not available for DVI input.
	Contrast adjusts the difference between the image background (black level) and the foreground (white level).
	Brightness adjusts background black level of the screen image.
	Input Select allows you to toggle between an analog and a digital signal.
	Color Adjust provides several color adjustment modes, including preset color temperatures and a User Color mode which allows independent adjustment of red (R), green (G), and blue (B). The factory setting for this product is 6500K (6500 Kelvin).



sRGB-This is quickly becoming the industry standard for color management, with support being included in many of the latest applications. Enabling this setting allows the LCD display to more accurately display colors the way they were originally intended. Enabling the sRGB setting will cause the Contrast and Brightness adjustments to be disabled.

9300K-Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

6500K-Adds red to the screen image for warmer white and richer red.

5400K-Adds green to the screen image for a darker color.

User Color Individual adjustments for red (R), green (G), and blue (B).

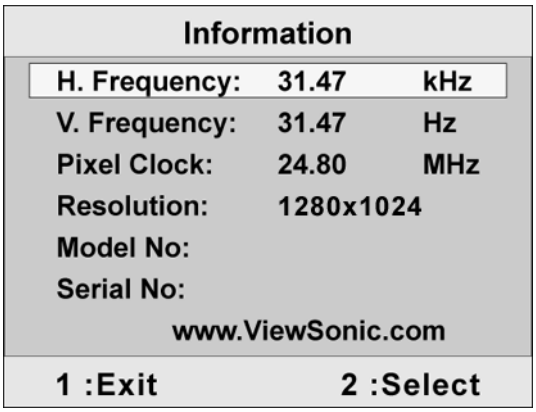
1. To select color (R, G or B) press button [2].

2. To adjust selected color, press▲or▼.

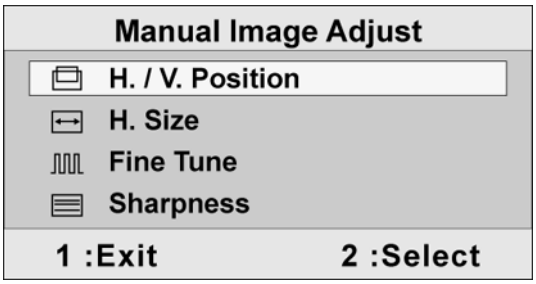
Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

Information displays the timing mode (video signal input) coming from the graphics card in the computer, the LCD model number, the serial number, and the ViewSonic® website URL. See your graphics card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).

NOTE: VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.



Manual Image Adjust displays the Manual Image Adjust menu.



The **Manual Image Adjust** controls are explained below:

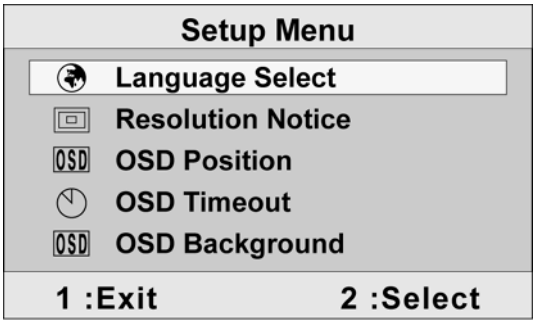
H./V. Position (Horizontal/Vertical Position) moves the screen image left or right and up or down.

H. Size (Horizontal Size) adjusts the width of the screen image.

Fine Tune sharpens the focus by aligning the text and/or graphic characters with pixel boundaries.

Sharpness adjusts the clarity and focus of the screen image.

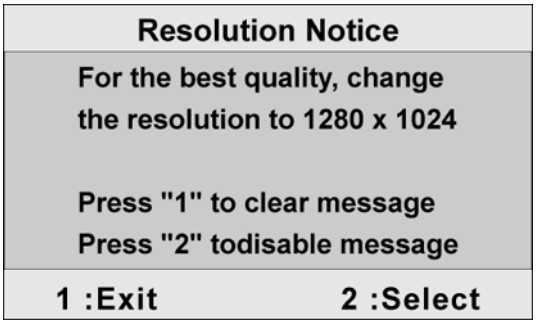
Setup menu displays the menu shown below:



The **Setup Menu** controls are explained below:

Language select allows the user to choose the language used in the menus and control screens.

Resolution Notice displays the Resolution Notice menu shown below.



Resolution Notice advises the optimal resolution to use.

OSD Position allows the user to move the on-screen display menus and control screens.

Control	Explanation

OSD Timeout sets the length of time the on-screen display screen is displayed. For example, with a "15 second" setting, if a control is not pushed within 15 seconds, the display screen disappears.

OSD Background allows the user to turn the On-Screen Display background On or Off.

Memory Recall returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.

Exception: This control does not affect changes made with the User Color control, Language or Power Lock setting.

4. Circuit Description

1. Outline

1.1 Buttons on the front panel: Power On/Off button, button 2 (ENTER / INPUT SELECT), up arrow button, down arrow button, button 1 (MENU).

1.2 The D-sub 15-pin connector, DVI-I connector and AC-IN jack are located on the back side of the cabinet.

1.3 The OSD menu includes the following functions:

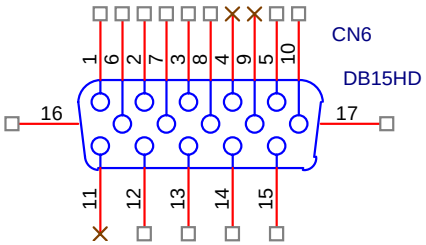
Auto Image Adjust (only active under analog input)
Contrast/Brightness
Audio Adjust
Color Adjust
Information
Manual Image Adjust
Setup Menu
Memory Recall

1.4 Contrast and Brightness can be directly controlled with the UP / DOWN buttons.

2. Connectors

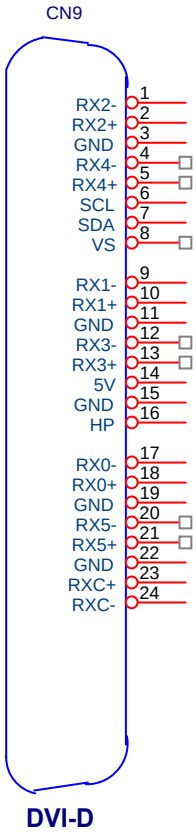
2.1 AC Socket: CEE22 type connector

2.2 Video signal connector for analog input: 15P Mini D-Sub



PIN	MNEMONIC	SIGNAL
1	RV	Red Video
2	GV	Green Video
3	BV	Blue Video
4	NC	None
5	GND	Ground(DDC return)
6	RG	Red GND
7	GG	Green GND
8	BG	Blue GND
9	+5V	+5V (for DDC)
10	SG	Sync GND
11	NC	None
12	SDA	DDC Data
13	HS	Horizontal Sync
14	VS	Vertical Sync
15	SCL	DDC Clock

2.3 Video signal connector for digital input: 24pin DVI-D connector



Pin No.	Signal Name	Description
1	RX2-	TMDS negative differential input, channel 2
2	RX2+	TMDS positive differential input, channel 2
3	GND	Logic Ground
4	RX4-	Reserved. No connection
5	RX4+	Reserved. No connection
6	SCL	DDC2B Clock
7	SDA	DDC2B Data
8	VS	Reserved. No connection
9	RX1-	TMDS negative differential input, channel 1
10	RX1+	TMDS positive differential input, channel 1
11	GND	Logic Ground
12	RX3-	Reserved. No connection
13	RX3+	Reserved. No connection
14	+5V	Power
15	GND	Logic Ground
16	HP	SENSE Pin, Pull High
17	RX0-	TMDS negative differential input, channel 0
18	RX0+	TMDS positive differential input, channel 0
19	GND	Logic Ground
20	RX5-	Reserved. No connection
21	RX5+	Reserved. No connection
22	GND	Logic Ground
23	RXC+	TMDS positive differential input, reference clock
24	RXC-	TMDS negative differential input, reference clock

3. Electrical Specifications

3.1 Standard conditions

Display Area	**404.2 x 330.0 mm**
Video Signal	**0.7Vpp**
Contrast	**Max.**
Brightness	**Max.**
Ambient	**20 +/- 5 ℃**
Input	**AC**
Warming up	**> 30 min**
Display	**1280 x 1024**

3.2 Power

3.2.1 Power supply

Input voltage	100~240Vac
Power frequency	50~60Hz
Input current	<1.5A RMS @90V AC
Inrush current	<0.8A RMS @180V AC
	50A(Max) at 120Vac(cold start)
Power consumption	35W(typical);40Watts(Max)

3.2.2 Power Management

State	Power	Indicator
On	35Watts	Green
Standby	< 1Watts	Amber
Off	<1Watts	Off

3.3 Acceptable timing

This LCD display can automatically detect and display input signals whose timing falls within the following limits.

Horizontal: Sync frequency: 30~82 kHz

Vertical: Sync frequency: 56~75Hz

3.4 Signal level and input impedance

3.4.1 Video signal level: 0.7Vp-p

3.4.2 Sync signal level - H/V separate: TTL level

3.4.3 Input impedance

Analog video input: 75 ohm

Digital video input: 100 ohm

Sync input: > 1 k ohm

Audio input: 10K ohm

4. Signal Cable: Signal cable with Mini D-Sub 15P connectors at both ends. Length: 1.8 meter.

5. EDID data

Analog EDID

128 BYTES OF EDID CODE:

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	1C	18	01	01	01	01	01	0F	01	03
20	0E	22	1B	78	2E	C5	C5	A3	57	4A
30	9C	23	12	50	54	BF	EF	80	81	80
40	71	4F	61	59	45	59	31	59	01	01
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	52	0E	11	00
70	00	1E	00	00	00	FF	00	50	53	4E
80	30	35	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	55	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	58	37	32	34	0A	20
120	20	20	20	20	20	20	00	55		

(08-09) ID Manufacturer Name = VSC
(11-10) Product ID Code = 181C
(12-15) Last 5 Digits of Serial Number = Not Used
(16) Week of Manufacture = 01
(17) Year of Manufacture = 2005
(10-17) Complete Serial Number = See Descriptor Block
(18) EDID Version Number = 1
(19) EDID Revision Number = 3
(20) VIDEO INPUT DEFINITION:
Analog Signal
0.700, 0.300 (1.000 Vp-p)
Separate Syncs, Composite Sync, Sync on Green
(21) Maximum Horizontal Image Size = 340 mm
(22) Maximum Vertical Image Size = 270 mm
(23) Display Gamma = 2.20
(24) Power Management and Supported Feature(s):
Active Off/Very Low Power, Standard Default Color Space,
Preferred Timing Mode
Display Type = R/G/B Color
(25-34) CHROMA INFO:
Red X - 0.640 Green X - 0.290 Blue X - 0.140 White X - 0.313
Red Y - 0.340 Green Y - 0.610 Blue Y - 0.070 White Y - 0.329

(35) ESTABLISHED TIMING I:
720 X 400 @ 70Hz (IBM,VGA)
640 X 480 @ 60Hz (IBM,VGA)
640 X 480 @ 67Hz (Apple,Mac II)
640 X 480 @ 72Hz (VESA)
640 X 480 @ 75Hz (VESA)
800 X 600 @ 56Hz (VESA)
800 X 600 @ 60Hz (VESA)

(36) ESTABLISHED TIMING II:
800 X 600 @ 72Hz (VESA)
800 X 600 @ 75Hz (VESA)
832 X 624 @ 75Hz (Apple,Mac II)
1024 X 768 @ 60Hz (VESA)
1024 X 768 @ 70Hz (VESA)
1024 X 768 @ 75Hz (VESA)
1280 X 1024 @ 75Hz (VESA)

(37) Manufacturer's Reserved Timing:
1152 X 870 @ 75Hz (Apple,Mac II)

(38-53) Standard Timing Identification:
1280 X 1024 @60Hz
1152 X 864 @75Hz
1024 X 768 @85Hz
800 X 600 @85Hz
640 X 480 @85Hz
Not Used
Not Used
Not Used

(54-71) Detailed Timing / Descriptor Block 1:
1280x1024 Pixel Clock: 108.00 MHz

Horizontal Image Size: 338 mm Vertical Image Size: 270 mm
Refreshed Mode: Non-Interlaced Normal Display - No Stereo

Horizontal:
Active Time: 1280 pixels Blanking Time: 408 pixels
Sync Offset: 48 pixels Sync Pulse Width: 112 pixels
Border: 0 pixels Frequency: 63.98 KHz

Vertical:
Active Time: 1024 lines Blanking Time: 42 lines
Sync Offset: 1 lines Sync Pulse Width: 3 lines
Border: 0 lines Frequency: 60.02 Hz

Digital Separate, Horizontal Polarity (+) Vertical Polarity (+)

(72-89) Detailed Timing / Descriptor Block 2:
Monitor Serial Number:
PSN050100001

(72-89) Detailed Timing / Descriptor Block 2:
Monitor Serial Number:
PSN050100001

(90-107) Detailed Timing / Descriptor Block 3:
Monitor Range Limits:
Min Vertical Freq - 50 Hz
Max Vertical Freq - 85 Hz
Min Horiz. Freq - 30 KHz
Max Horiz. Freq - 82 KHz
Pixel Clock - 140 MHz
Secondary GTF - Not Supported

(108-125) Detailed Timing / Descriptor Block 4:
Monitor Name:
VX724

(126) No Extension EDID Block(s)

(127) CheckSum OK

Digital EDID

128 BYTES OF EDID CODE:

	0	1	2	3	4	5	6	7	8	9
0	00	FF	FF	FF	FF	FF	FF	00	5A	63
10	1C	18	01	01	01	01	01	0F	01	03
20	80	22	1B	78	2E	C5	C5	A3	57	4A
30	9C	23	12	50	54	BF	EF	80	81	80
40	71	4F	61	59	45	59	31	59	31	0A
50	01	01	01	01	30	2A	00	98	51	00
60	2A	40	30	70	13	00	52	0E	11	00
70	00	1E	00	00	00	FF	00	50	53	4E
80	30	35	30	31	30	30	30	30	31	0A
90	00	00	00	FD	00	32	55	1E	52	0E
100	00	0A	20	20	20	20	20	20	00	00
110	00	FC	00	56	58	37	32	34	0A	20
120	20	20	20	20	20	20	00	AA		

(08-09) ID Manufacturer Name = VSC
(11-10) Product ID Code = 181C
(12-15) Last 5 Digits of Serial Number = Not Used
(16) Week of Manufacture = 01
(17) Year of Manufacture = 2005
(10-17) Complete Serial Number = See Descriptor Block
(18) EDID Version Number = 1
(19) EDID Revision Number = 3
(20) VIDEO INPUT DEFINITION:
Digital Signal
Non - VESA DFP 1.x Compatible
(21) Maximum Horizontal Image Size = 340 mm
(22) Maximum Vertical Image Size = 270 mm
(23) Display Gamma = 2.20
(24) Power Management and Supported Feature(s):
Active Off/Very Low Power, Standard Default Color Space,
Preferred Timing Mode
Display Type = R/G/B Color
(25-34) CHROMA INFO:
Red X - 0.640 Green X - 0.290 Blue X - 0.140 White X - 0.313
Red Y - 0.340 Green Y - 0.610 Blue Y - 0.070 White Y - 0.329

(35) ESTABLISHED TIMING I:
720 X 400 @ 70Hz (IBM,VGA)
640 X 480 @ 60Hz (IBM,VGA)
640 X 480 @ 67Hz (Apple,Mac II)
640 X 480 @ 72Hz (VESA)
640 X 480 @ 75Hz (VESA)
800 X 600 @ 56Hz (VESA)
800 X 600 @ 60Hz (VESA)

(36) ESTABLISHED TIMING II:
800 X 600 @ 72Hz (VESA)
800 X 600 @ 75Hz (VESA)
832 X 624 @ 75Hz (Apple,Mac II)
1024 X 768 @ 60Hz (VESA)
1024 X 768 @ 70Hz (VESA)
1024 X 768 @ 75Hz (VESA)
1280 X 1024 @ 75Hz (VESA)

(37) Manufacturer's Reserved Timing:
1152 X 870 @ 75Hz (Apple,Mac II)

(38-53) Standard Timing Identification:
1280 X 1024 @60Hz
1152 X 864 @75Hz
1024 X 768 @85Hz
800 X 600 @85Hz
640 X 480 @85Hz
640 X 400 @70Hz
Not Used
Not Used

(54-71) Detailed Timing / Descriptor Block 1:
1280x1024 Pixel Clock: 108.00 MHz

	Horizontal Image Size: 338 mm	Vertical Image Size: 270 mm
	Refreshed Mode: Non-Interlaced	Normal Display - No Stereo
Horizontal:		
	Active Time: 1280 pixels	Blanking Time: 408 pixels
	Sync Offset: 48 pixels	Sync Pulse Width: 112 pixels
	Border: 0 pixels	Frequency: 63.98 KHz
Vertical:		
	Active Time: 1024 lines	Blanking Time: 42 lines
	Sync Offset: 1 lines	Sync Pulse Width: 3 lines
	Border: 0 lines	Frequency: 60.02 Hz

Digital Separate, Horizontal Polarity (+) Vertical Polarity (+)

(72-89)	Detailed Timing / Descriptor Block 2: Monitor Serial Number: PSN050100001
(90-107)	Detailed Timing / Descriptor Block 3: Monitor Range Limits: Min Vertical Freq - 50 Hz Max Vertical Freq - 85 Hz Min Horiz. Freq - 30 KHz Max Horiz. Freq - 82 KHz Pixel Clock - 140 MHz Secondary GTF - Not Supported
(108-125)	Detailed Timing / Descriptor Block 4: Monitor Name: VX724
(126)	No Extension EDID Block(s)
(127)	CheckSum OK

6. THEORY OF OPERATION

This section describes the function of the LCD monitor per functional block.
This monitor includes MB board, power board and button board.

6.1 MB BOARD

The MB board is a two-layer, single-grounded design with ground and internal planes provided. DC power from the power board enters the board through a 6P connector. The other connector on the board is for the button board. The VGA cable is a signal cable that carries the video, sync and DDC signals from the PC VGA adapter. This system board consists of 4 functional areas: flat panel controller, MCU with flash ROM, and power regulators.

6.1.1 Flat panel controller: RTD2523(U7)

The heart of the system board is the Realtek RTD2523. The RTD2523 is a graphics processing IC designed for LCD monitors. It provides all key IC functions required for LCD displays. On-chip functions include a high-speed triple-ADC, PLL, high scaling engine and OSD controller.

a) Clock Generation:
Crystal Input Clock (TCLK and XTAL). This is the input pair to an internal crystal oscillator and corresponding logic. A 24.576 MHz crystal is recommended.

b) Analog to Digital Converter:
The RTD2523 chip has three ADCs (analog-to-digital converters), one for each color (red, green and blue). The analog RGB signals are connected to RTD2523 as described below.

Pin Name	Pin Number
Red +	**37**
Red -	**38**
Green +	**34**
Green -	**35**
Blue +	**30**
Blue -	**31**

c) OSD: The RTD2523 has a fully programmable, high-quality OSD controller. The on-chip static RAM (4096 words by 24 bits) stores the cell map and the cell definitions.

d) MTV312 Micro Controller: The MTV312 micro controller (MCU) serves as the system micro controller. It programs the RTD2523 and manages other devices in the system such as the keypad, the backlight, the LED, the audio system and the non-volatile RAM using general purpose input/output (GPIO) pins.

Pin number	Pin Name	Pin Usage
1	P5.2	Key / Power on, off
13	P3.4	NV_RAM (U4) SDA
14	P3.5	NV_RAM (U4) SCL
41	P5.4	Key_down
40	P5.5	Key_right
42	P5.3	Key_up
34	P5.6	Key_left
9	P6.3	Key_mute
2	P5.1	Key_select
27	P6.0	LED_red
26	P6.1	LED_green
16	P6.2	LCD panel power1 on / off control
17	P1.0	Backlight on / off control

e) Panel Power Sequencing (PANEL_PW12,3) (Pin 16, 18): The MTV312 has two dedicated outputs VDDCTRL1 and 2 (Pin32 and Pin3) to control LCD power sequencing once data and control signals are stable.

f) Panel interface (Pin73~94): The RTD2523 driver interface is highly programmable. It supports dual bus / dual port for SXGA drivers.

6.1.2 Power Regulator AIC1563 (U2), AIC1117CY (U1,U3): The AIC1563 is a monolithic control IC containing the primary functions required for DC to DC converters. The device consists of an internal temperature compensated reference, a comparator, and a controlled duty cycle oscillator with an active current sense circuit. The desired output voltage is determined by the equation, Volt = 1.25 (1 + R11 / R12). In this case, the output voltage is 5 Volts. The AIC1563 is a low dropout positive adjustable regulator with minimum of 1A output current capability, so it is well suited to serve as a 3.3 V or 2.5 V regulator.

6.1.3 Power Regulator AIC1117CY (U1,U3): The AIC1117CY is a monolithic control IC containing the primary functions required for DC to DC converters. The device consists of an internal temperature compensated reference, a comparator, and a controlled duty cycle oscillator with an active current sense circuit. The desired output voltage is determined by the equation, Volt = 1.25 (1 + R17 / R15). In this case, the output voltage is 2.5 Volts for panel power.

6.2 Power (Inverter) Board

This is a specific power (inverter) board for VX912 monitor with output of 40W / 12V / 3.5A. It provides 12 VDC to drive the four cold cathode fluorescence tubes in the backlight.

6.2.1 The inverter's electrical specification is described below.

Input	Rated Input Voltage	12Vdc
	Input Voltage Range	11.4 ~ 12.6 Vdc
	Input Current	<2A
	On / Off control Voltage	2~3.3 for on, 0~1 for off
Output	Rated Output Strike-on Voltage	1500Vrms
	Rated Output Voltage	710Vrms at 7mA
	Rate Output Frequency	40~50KHz
	Rated Output Current	7~8 mA

6.2.2 Power

This is a general purpose AC / DC adapter which converts 90~240 Vac to a stabilized DC voltage: 12 Volts, with a rated output current of 4.16A. The electrical specification is described below.

	Rated Input Voltage	90~240 Vac, 50 / 60Hz
	Operation Input Voltage	90~260 Vac, 47 ~ 63Hz
	Input Current	<1.5A
	Inrush Current	<100A@120Vac
	Standby Input Voltage	12Vdc
	Output Voltage Regulation	+/-5%
	Output Ripple & Noise	120mVp-p
	Rate Output Current	<3.5A
	Turn-on delay	<3secs

5. Adjustment Procedure

OSD Function Menu

A. When in Analog Input Mode

1. Main Menu

Press the [1] (Menu) button to enter the Main Menu:
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.
Press the [1] (Menu) button to exit the Main Menu.

(1) Auto Image Adjust Page:

Press the [2] button to execute the auto image adjust function.
Press the [1] button to exit the page.

(2) Contrast/Brightness Page:

Press the [2] button to enter the contrast adjustment page.
Press the [1] button to exit the page.

1) Contrast Item

Press the [▲] button to increase the contrast.
Press the [▼] button to decrease the contrast.
Press the [2] button to enter the brightness adjustment page.
Press the [1] button to exit the page.

2) Brightness Item

Press the [▲] button to increase the brightness.
Press the [▼] button to decrease the brightness.
Press the [2] button to enter the contrast adjustment page.
Press the [1] button to exit the page.

(3) Input Select Page:

Press the [2] button to switch to digital input mode.

(4) Color Adjust Page:

Press the [2] button to enter the color adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) sRGB Item
2) 9300K Item
3) 6500K Item
4) 5400K Item

Press the [2] button to select the currently highlighted item.
Press the [1] button to exit the currently highlighted item.

5) User Color Item

Press the [2] button to enter the user color page.
Press the [1] button to exit the page.
Red, Green, Blue Options:
Press the [2] button to cycle among the colors.
Press the [1] button to exit the page.
Press the [▲] button to increase the selected color level.
Press the [▼] button to decrease the selected color level.

(5) Information Page:

Press the [2] button to enter the information page.
Press the [1] button to exit the information page.

(6) Manual Image Adjust Page:

Press the [2] button to enter the manual image adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) H./V. Position Item

Press the [2] button to enter the horizontal/vertical postion adjustment page.
Press the [1] button to exit the page.

a) Horizontal Position:

Press the [2] button to enter the vertical position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the image to the right.
Press the [▼] button to shift the image to the left.

b) Vertical Position:

Press the [2] button to return to the horizontal position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the image upward.
Press the [▼] button to shift the image downward.

2) Horizontal Size Item

Press the [2] button to enter the horizontal size adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to make the image wider.
Press the [▼] button to make the image narrower.

3) Fine tune Item

Press the [2] button to enter the fine tuning page.
Press the [1] button to exit the page.
Press "[▲]" Button to adjust character position in one direction.
Press "[▼]"Button to adjust character position in the other direction.

4) Sharpness Item

Press the [2] button to enter the sharpness adjustment page.
Press the [1] button to exit the page.
Press "[▲]" Button to increase image sharpness.
Press "[▼]" Button to decrease image sharpness.

(7) Setup Menu Page:

Press the [2] button to enter the setup menu page.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) Language Select Item

Press the [2] button to enter the language selection page.

Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.
English, French… Option
Press the [2] button to select the language.
Press the [1] button to exit the page.

2) Resolution Notice Item
Press the [2] button to enter the resolution notice page.
Press the [1] button to exit the page.
Enable, Disable Option
Press the [2] button to select the highlighted option.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous option or the [▼] button to highlight the next option.

3) OSD Position Item
Press the [2] button to enter the OSD position adjustment page.
Press the [1] button to exit the page.

a) Horizontal Position Option
Press the [2] button to enter the vertical position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the menu to the right.
Press the [▼] button to shift the menu to the left.

b) Vertical Position Option:
Press the [2] button to enter the horizontal position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the menu upward.
Press the [▼] button to shift the menu downward.

4) OSD Time Out Item
Press the [2] button to enter the OSD time out adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to increase the OSD time out.
Press the [▼] button to decrease the OSD time out.

5) OSD Background Item
Press the [2] button to enter the OSD background selection page.
Press the [1] button to exit the page.
Enable, Disable Option
Press the [▲] button to highlight the previous option or the [▼] button to highlight the next option.
Press the [2] button to select the highlighted option.
Press the [1] button to exit the page.

(8) Memory Recall Page
Press the [2] button to execute the memory recall function.
Press the [1] button to exit the page.

2. Other Menu:

This "shortcut" menu is directly accessible without bringing up the OSD.

(1) Contrast Dialog

Press the [▲] or [▼] button to enter the Contrast Dialog.
Press the [1] button to exit the Contrast Dialog.
Press the [2] button to enter the Brightness Dialog.
Press the [▲] button to increase the contrast.
Press the [▼] button to decrease the contrast.

(2) Brightness Dialog

Press the [▲] or [▼] button to enter the Brightness Dialog.
Press the [1] button to exit the Brightness Dialog.
Press the [2] button to enter the Contrast Dialog.
Press the [▲] button to increase the brightness.
Press the [▼] button to decrease the brightness.

(3) Analog/Digital Dialog

Press the [2] button to toggle between analog and digital modes.

B. When in Digital Input Mode

1. Main Menu

Press the [1] (Menu) button to enter the Main Menu:
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.
Press the [1] (Menu) button to exit the Main Menu.

(1) Auto Image Adjust Page:

Press the [2] button to execute the auto image adjust function.
Press the [1] button to exit the page.

(2) Contrast/Brightness Page:

Press the [2] button to enter the contrast adjustment page.
Press the [1] button to exit the page.

1) Contrast Item

Press the [▲] button to increase the contrast.
Press the [▼] button to decrease the contrast.
Press the [2] button to enter the brightness adjustment page.
Press the [1] button to exit the page.

2) Brightness Item

Press the [▲] button to increase the brightness.
Press the [▼] button to decrease the brightness.
Press the [2] button to enter the contrast adjustment page.
Press the [1] button to exit the page.

(3) Input Select Page:

Press the [2] button to switch to analog input mode.

(4) Color Adjust Page:

Press the [2] button to enter the color adjustment page.

Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) **sRGB Item**
2) **9300K Item**
3) **6500K Item**
4) **5400K Item**
   Press the [2] button to select the currently highlighted item.
   Press the [1] button to exit the currently highlighted item.
5) **User Color Item**
   Press the [2] button to enter the user color page.
   Press the [1] button to exit the page.
   Red, Green, Blue Options:
   Press the [2] button to cycle among the colors.
   Press the [1] button to exit the page.
   Press the [▲] button to increase the selected color level.
   Press the [▼] button to decrease the selected color level.

(5) Information Page:
Press the [2] button to enter the information page.
Press the [1] button to exit the information page.

(6) Manual Image Adjust Page:
Press the [2] button to enter the manual image adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) Sharpness Item
Press the [2] button to enter the sharpness adjustment page.
Press the [1] button to exit the page.
Press "[▲]" Button to increase image sharpness.
Press "[▼]" Button to decrease image sharpness.

(7) Setup Menu Page:
Press the [2] button to enter the setup menu page.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.

1) **Language Select Item**
   Press the [2] button to enter the language selection page.
   Press the [1] button to exit the page.
   Press the [▲] button to highlight the previous item or the [▼] button to highlight the next item.
   English, French… Option
   Press the [2] button to select the language.
   Press the [1] button to exit the page.

2) **Resolution Notice Item**
   Press the [2] button to enter the resolution notice page.

Press the [1] button to exit the page.

Enable, Disable Option

Press the [2] button to select the highlighted option.
Press the [1] button to exit the page.
Press the [▲] button to highlight the previous option or the [▼] button to highlight the next option.

3) OSD Position Item

Press the [2] button to enter the OSD position adjustment page.
Press the [1] button to exit the page.

a) Horizontal Position Option

Press the [2] button to enter the vertical position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the menu to the right.
Press the [▼] button to shift the menu to the left.

b) Vertical Position Option:

Press the [2] button to enter the horizontal position adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to shift the menu upward.
Press the [▼] button to shift the menu downward.

4) OSD Time Out Item

Press the [2] button to enter the OSD time out adjustment page.
Press the [1] button to exit the page.
Press the [▲] button to increase the OSD time out.
Press the [▼] button to decrease the OSD time out.

5) OSD Background Item

Press the [2] button to enter the OSD background selection page.
Press the [1] button to exit the page.

Enable, Disable Option

Press the [▲] button to highlight the previous option or the [▼] button to highlight the next option.
Press the [2] button to select the highlighted option.
Press the [1] button to exit the page.

(8) Memory Recall Page

Press the [2] button to execute the memory recall function.
Press the [1] button to exit the page.

2. Other Menu:

This "shortcut" menu is directly accessible without bringing up the OSD.

(1) Contrast Dialog

Press the [▲] or [▼] button to enter the Contrast Dialog.
Press the [1] button to exit the Contrast Dialog.
Press the [2] button to enter the Brightness Dialog.
Press the [▲] button to increase the contrast.
Press the [▼] button to decrease the contrast.

(2) Brightness Dialog

Press the [▲] or [▼] button to enter the Brightness Dialog.
Press the [1] button to exit the Brightness Dialog.
Press the [2] button to enter the Contrast Dialog.
Press the [▲] button to increase the brightness.
Press the [▼] button to decrease the brightness.

(3) Analog/Digital Dialog

Press the [2] button to toggle between analog and digital modes.

C. Other Information

When the "No Signal" or "Out of Range" messages appear:

If no input signal is detected, the "No Signal" message will appear in the center of the screen.
If the V-Sync signal rate is greater than than 85Hz or its resolution is greater than SXGA, the "Out of Range" message will appear in the center of the screen.

Activating Factory Mode and Burn Mode:

While the device is in standby, press the [2] button, then press the power button to enter Factory Mode. While Factory Mode is active, an additional menu page titled "Factory Menu" will be accessible. Press the [2] button to enter the Factory Menu page, then press the [2] button to enter Burn Mode.

When Installing a New Main Board

1. Enter Factory Mode.
2. Use a PC or chrom to send a 32-tone gray scale signal to the monitor.
3. Select "Auto Color"

1. Function test

(1) Test equipment
Color video signal and pattern generator (or PC with SXGV resolution)

(2) Test condition
Before function testing and alignment, the unit must warm up for at least 30 minutes under the following conditions:

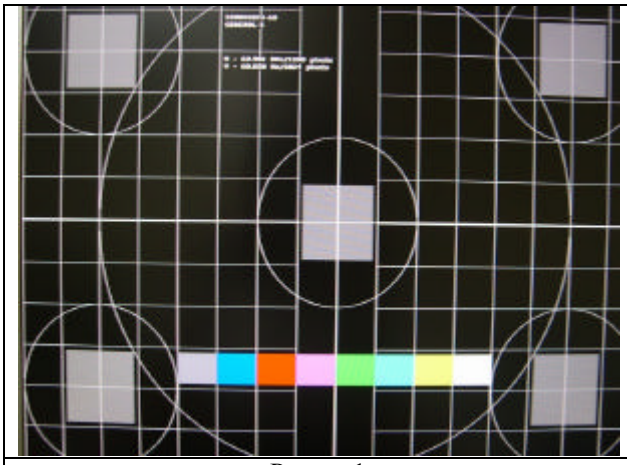
1. Room temperature;
2. With full-white screen, RGB, black pattern;
3. With cycled display modes.

2. Test display modes

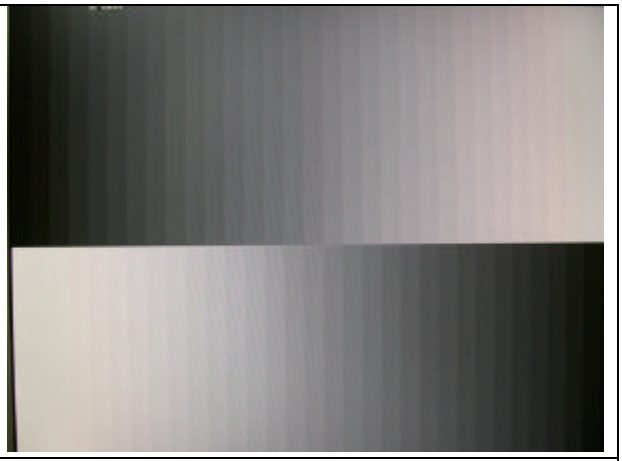
Item	Timing	Analog	Digital
1	640 x 350 @ 70Hz, 31.5kHz	Yes	Yes
2	640 x 400 @ 60Hz, 31.5kHz	Yes	Yes
3	640 x 400 @ 70Hz, 31.5kHz	Yes	Yes
4	640 x 480 @ 50Hz, 24.7kHz	No	No
5	640 x 480 @ 60Hz, 31.5kHz	Yes	Yes
6	640 x 480 @ 67Hz, 35.0kHz	Yes	Yes
7	640 x 480 @ 72Hz, 37.9kHz	Yes	Yes
8	640 x 480 @ 75Hz, 37.5kHz	Yes	Yes
9	640 x 480 @ 85Hz, 43.27kHz	Yes	Yes
10	720 x 400 @ 70Hz, 31.5kHz	Yes	Yes
11	800 x 600 @ 56Hz, 35.1kHz	Yes	Yes
12	800 x 600 @ 60Hz, 37.9kHz	Yes	Yes
13	800 x 600 @ 75Hz, 46.9kHz	Yes	Yes
14	800 x 600 @ 72Hz, 48.1kHz	Yes	Yes
15	800 x 600 @ 85Hz, 53.7kHz	Yes	Yes
16	832 x 624 @ 75Hz, 49.7kHz	Yes	Yes
17	1024 x 768 @ 60Hz, 48.4kHz	Yes	Yes
18	1024 x 768 @ 70Hz, 56.5kHz	Yes	Yes
19	1024 x 768 @ 72Hz, 58.1kHz	Yes	Yes
20	1024 x 768 @ 75Hz, 60.0kHz	Yes	Yes
21	1024 x 768 @ 85Hz, 68.67kHz	Yes	Yes
22	1152 x 864 @ 75Hz, 67.5kHz	Yes	Yes
23	1152 x 870 @ 75Hz, 68.7kHz	Yes	Yes
24	1280 x 1024 @ 60Hz, 63.4kHz	Yes	Yes
25	1280 x 1024 @ 75Hz, 79.97kHz	Yes	Yes
26	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes	Yes

3. Test pattern

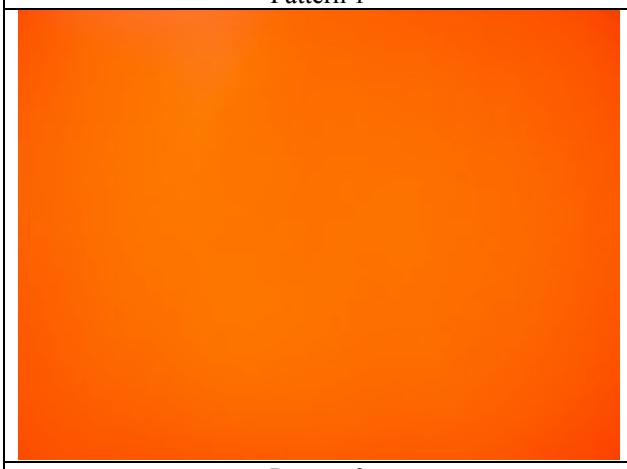
Item	Test condition	Pattern	Specification	Remark
1	Frequency & performance	Cross-hatch pattern	No noise is allowed, all colors must be clear	Pattern 1
2	Monitor saturation	16-gray scale pattern	3 to 4 levels must be saturated when brightness and contrast are set to 100%	Pattern 2
3	RGB color performance	RGB color	Check the color temperature of RGB signal color	Pattern 3, 4, 5
4	Sub-pixel defect	RGB color	Check for sub-pixel defects	Pattern 3, 4 , 5
5	Full white	Full white	Check the brightness and contrast ratio, and check for bright pixel defects	Pattern 6
6	Full black	Full black		Pattern 7
7.	5-cycle pattern	5-cycle pattern	Check the BU	Pattern 8
8.	1-dot pattern	1-dot pattern	Check the flicker	Pattern 9



Pattern 1

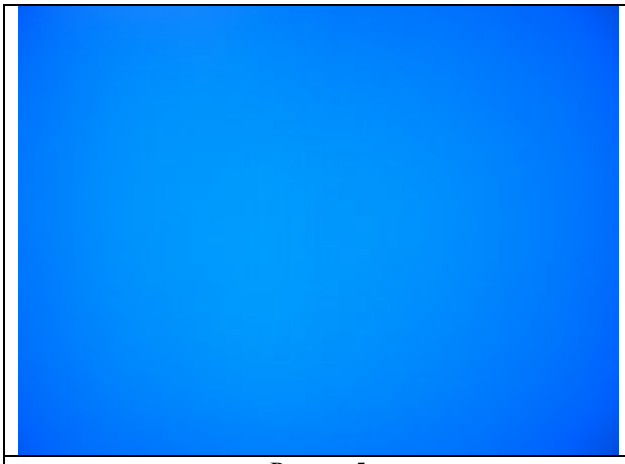
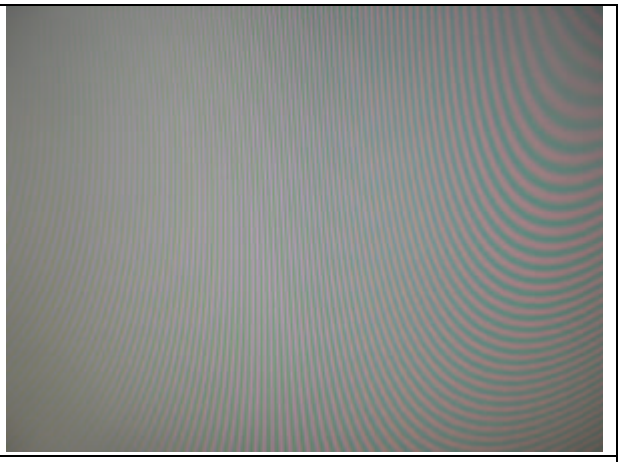
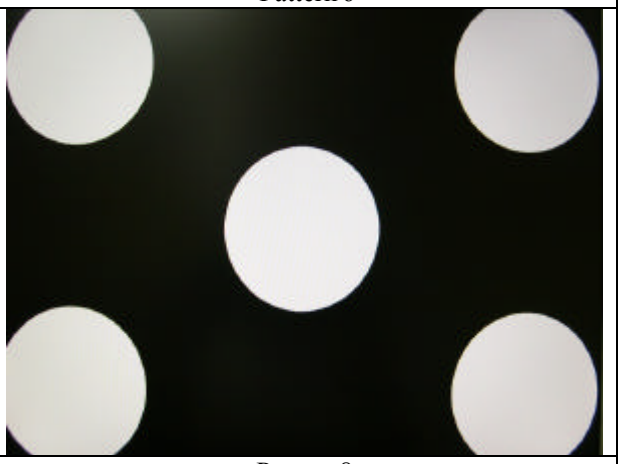


Pattern 2



Pattern 3

Pattern 4

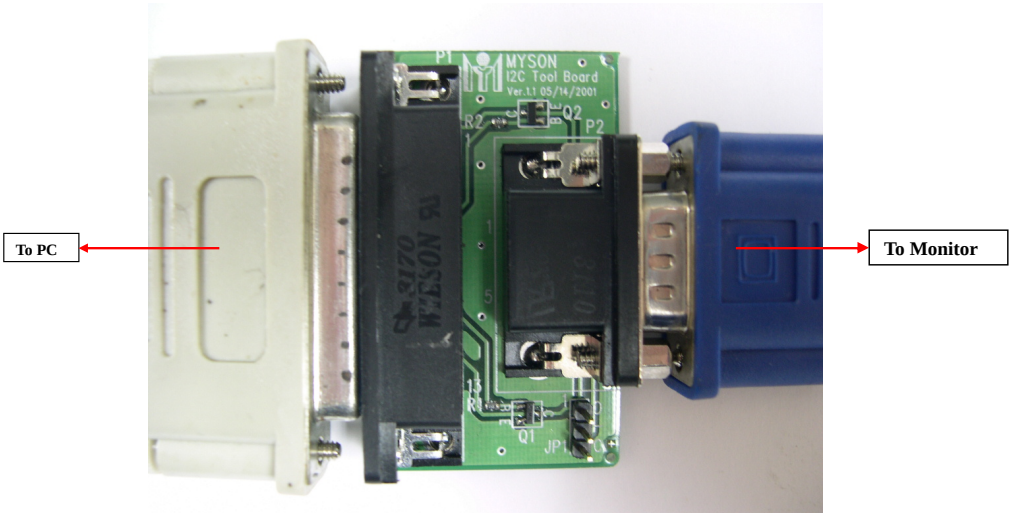
	
Pattern 5	Pattern 6
	
Pattern 7	Pattern 8
Pattern 9	

6. Firmware update procedure :

When examining a monitor, please check whether the firmware version is the latest. If not, please follow the procedure below to upgrade to the latest version.

1. Equipment needed :
   - VX724
   - PC (Personal computer)
   - LPT cable
   - Fixture (LM5ISP)
   - Firmware upgrade program

2. Connection :



Appendix A : How to install the software for ISP:

1. To set up ISP environment:

Hardware: PC or notebook, parallel (printer) cable, ISP tooling.

Software: If OS is Win2000 or WinXP, please install "PORT95NT.exe".

In order to ensure that the system can execute the ISP program, please adjust the BIOS settings in the PC or notebook as shown in Fig 0.0.

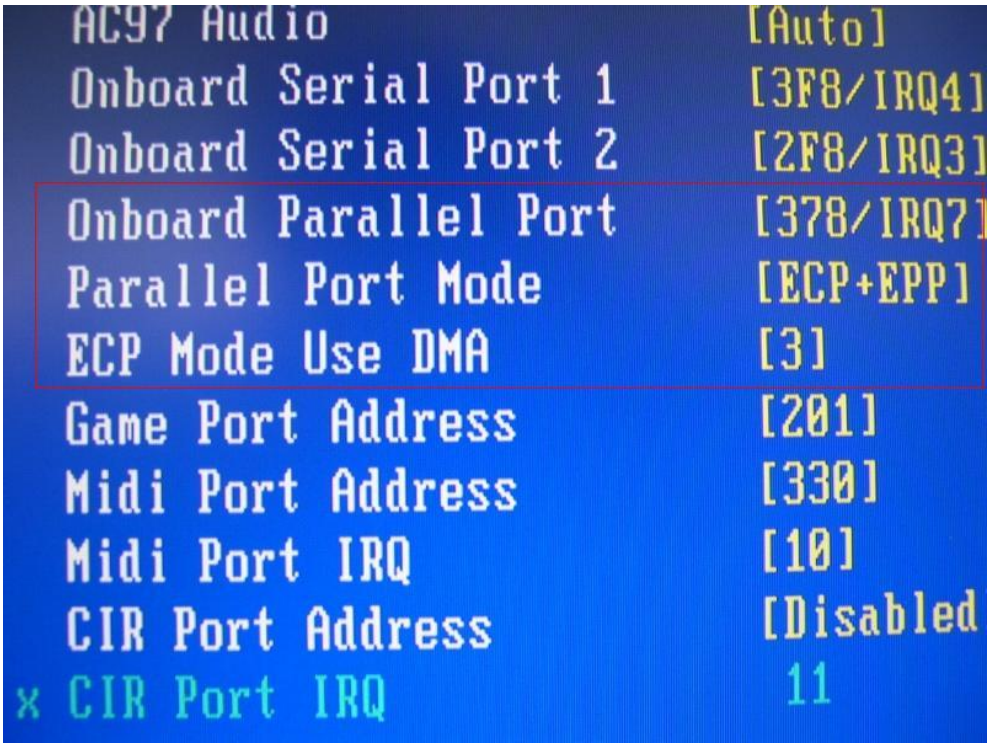

AC97 Audio [Auto]
Onboard Serial Port 1 [3F8/IRQ4]
Onboard Serial Port 2 [2F8/IRQ3]
Onboard Parallel Port [378/IRQ7]
Parallel Port Mode [ECP+EPP]
ECP Mode Use DMA [3]
Game Port Address [201]
Midi Port Address [330]
Midi Port IRQ [10]
CIR Port Address [Disabled
x CIR Port IRQ 11

Fig 0.0

2. Double-click the "PORT95NT.exe" icon in Windows and install the program; see Fig 0.1.

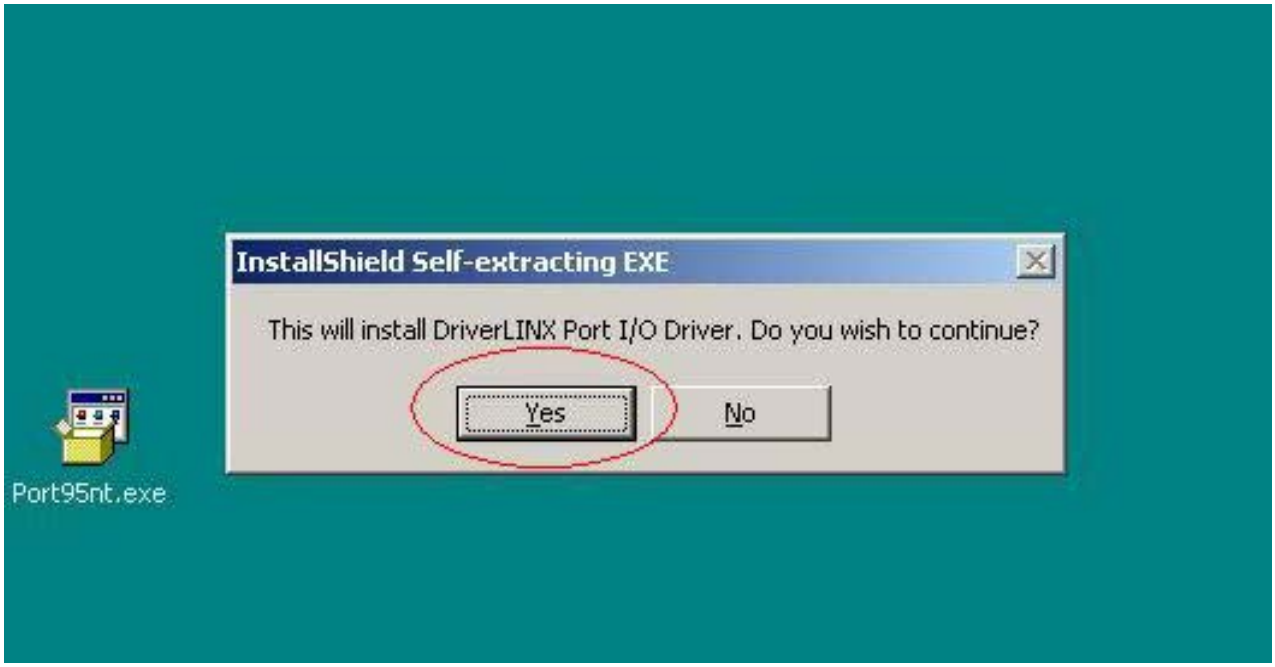


Fig 0.1

3. Continue through the installation process by pressing "Next" four times; see Fig. 0.2.

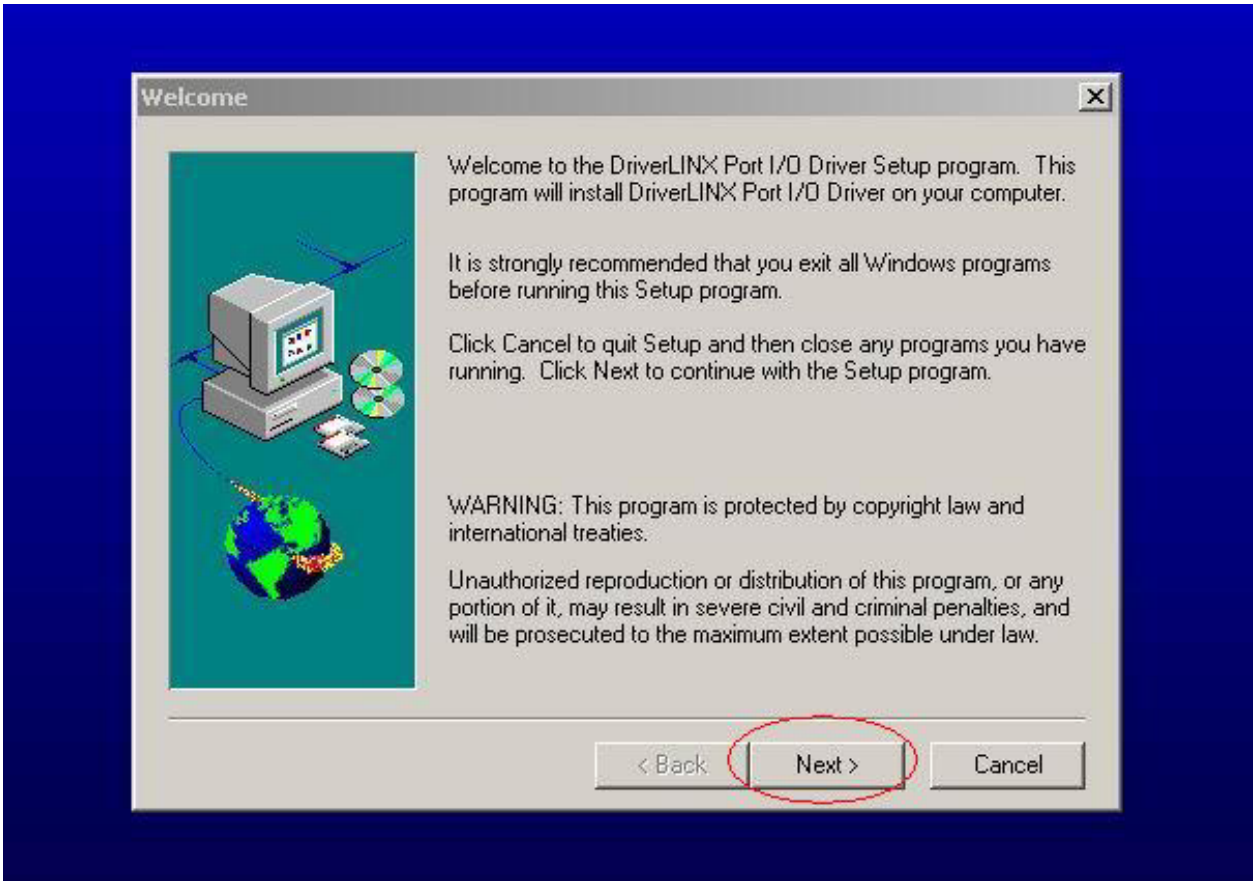

Welcome
Welcome to the DriverLINX Port I/O Driver Setup program. This program will install DriverLINX Port I/O Driver on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

Fig. 0.2

4. Choose "Typical" then press "Next;" see Fig. 0.3.

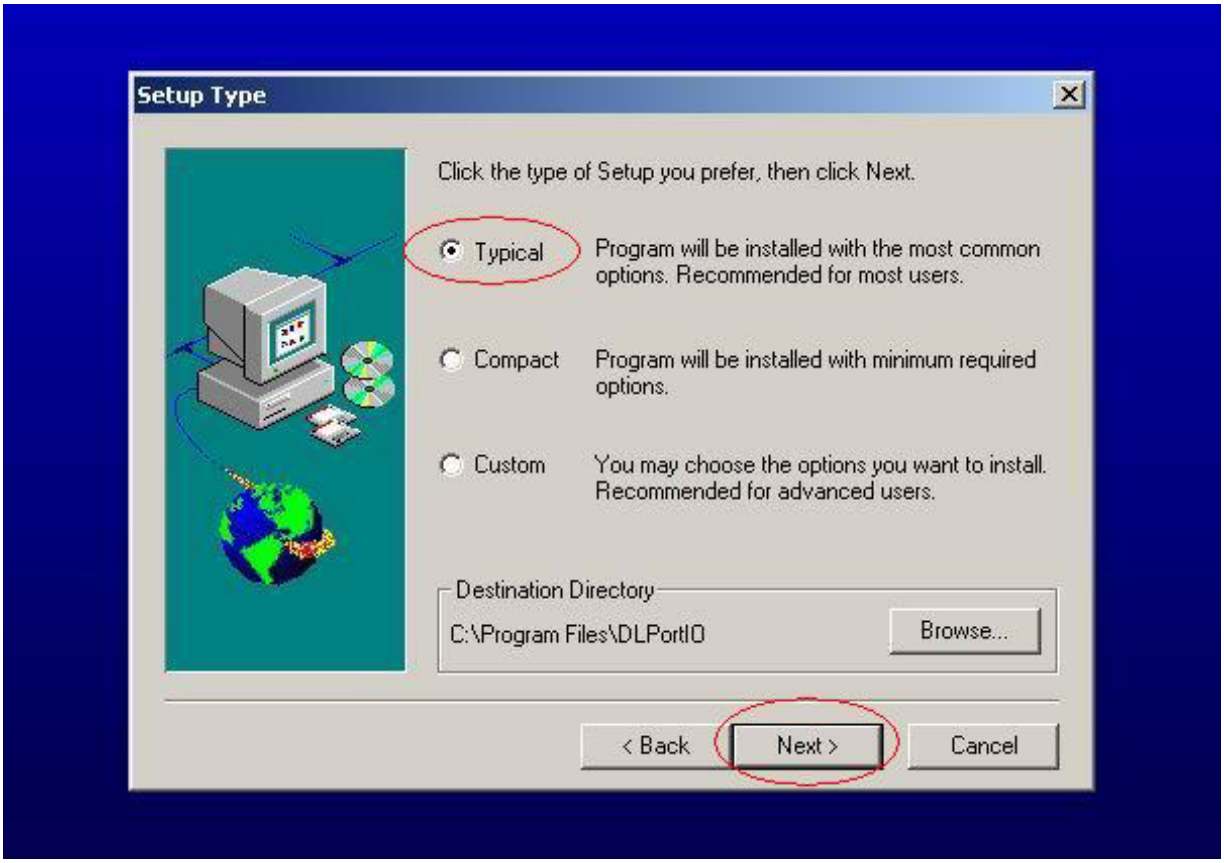

Setup Type
Click the type of Setup you prefer, then click Next.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Custom
You may choose the options you want to install. Recommended for advanced users.
Destination Directory
C:\Program Files\DLPortIO
Browse...
< Back
Next >
Cancel

Fig. 0.3

5. Continue through the installation process by pressing "Next" four times; see Fig. 0.4.

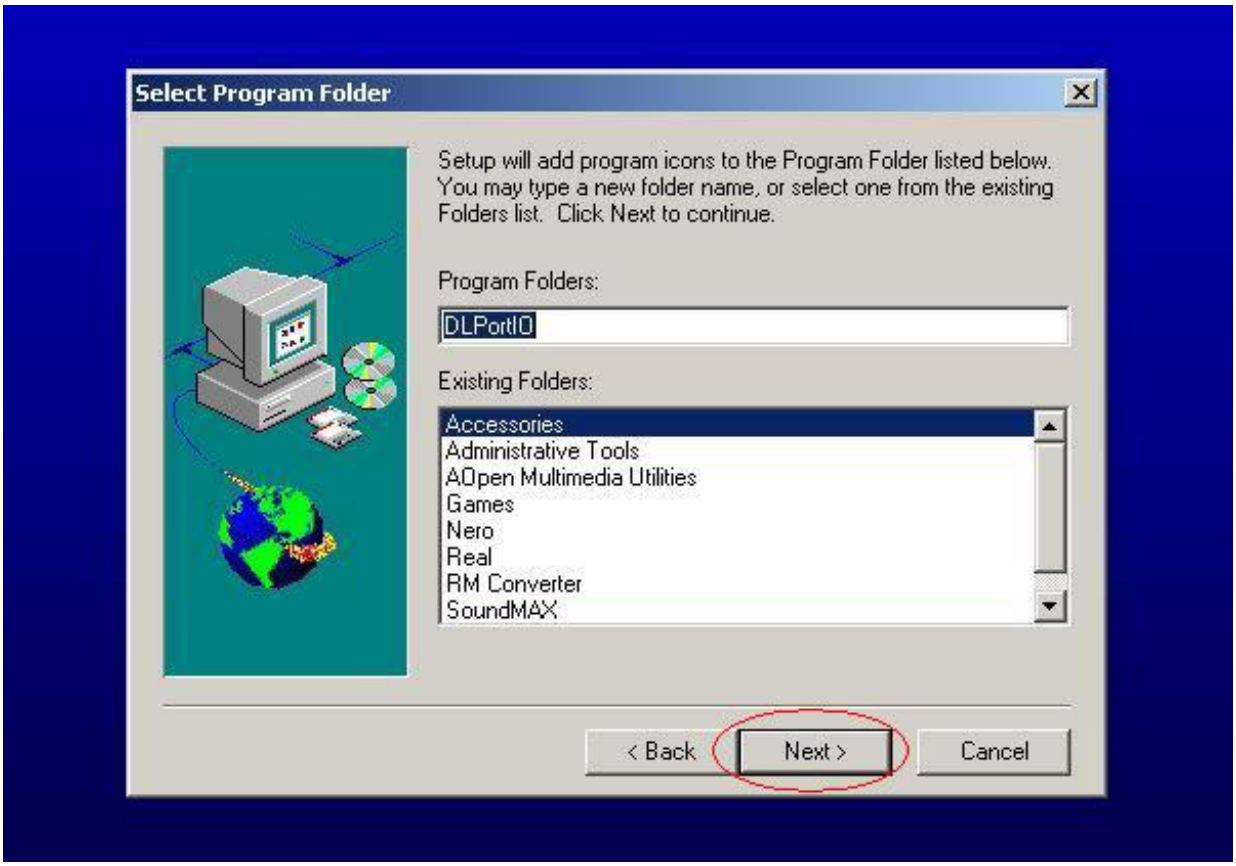


Fig. 0.4

6. When the installation is complete, restart the PC or notebook; see Fig 0.5.

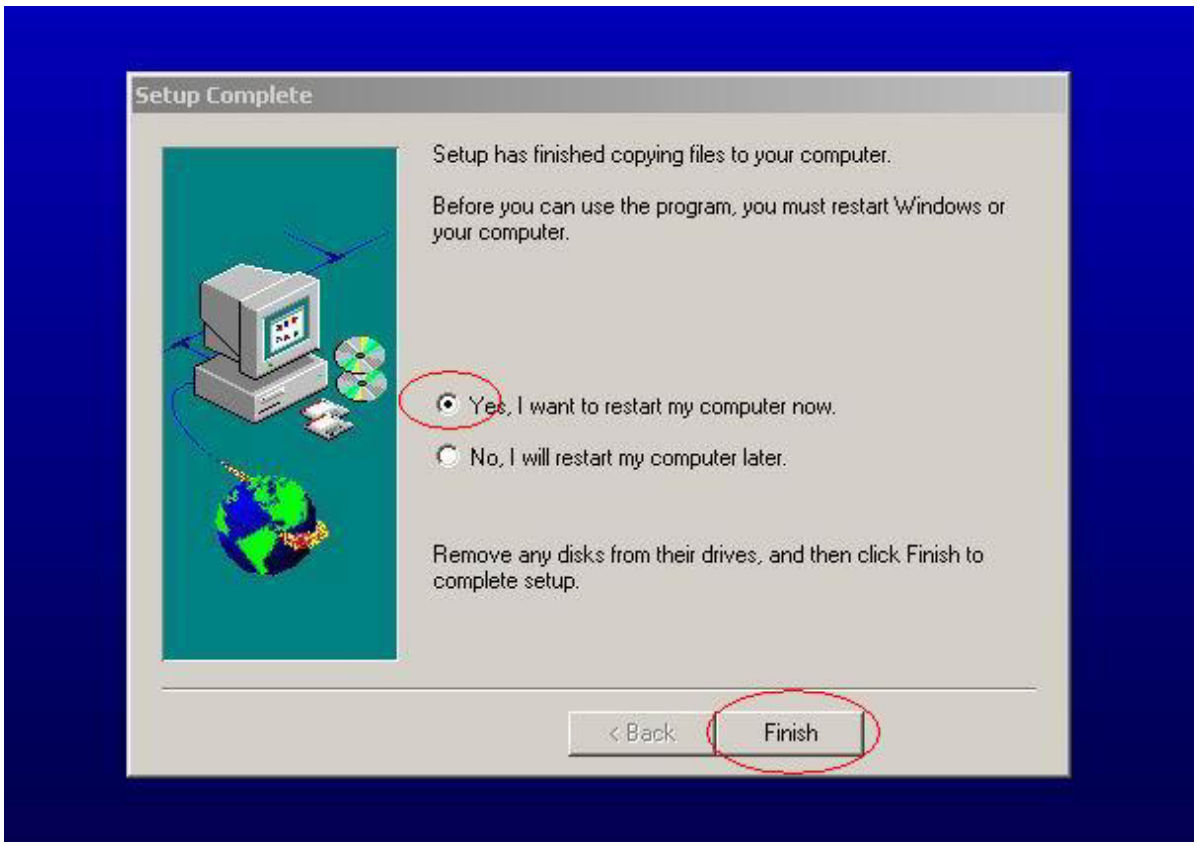

Setup Complete
Setup has finished copying files to your computer.
Before you can use the program, you must restart Windows or your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish

Fig. 0.5

Install ISP

1. The user may download the ISP driver and PORT95NT installation package from the Myson Century website (www.myson.com.)
2. The files extracted from the ZIP file are listed in Fig 1.0. Double-click setup.exe to install.

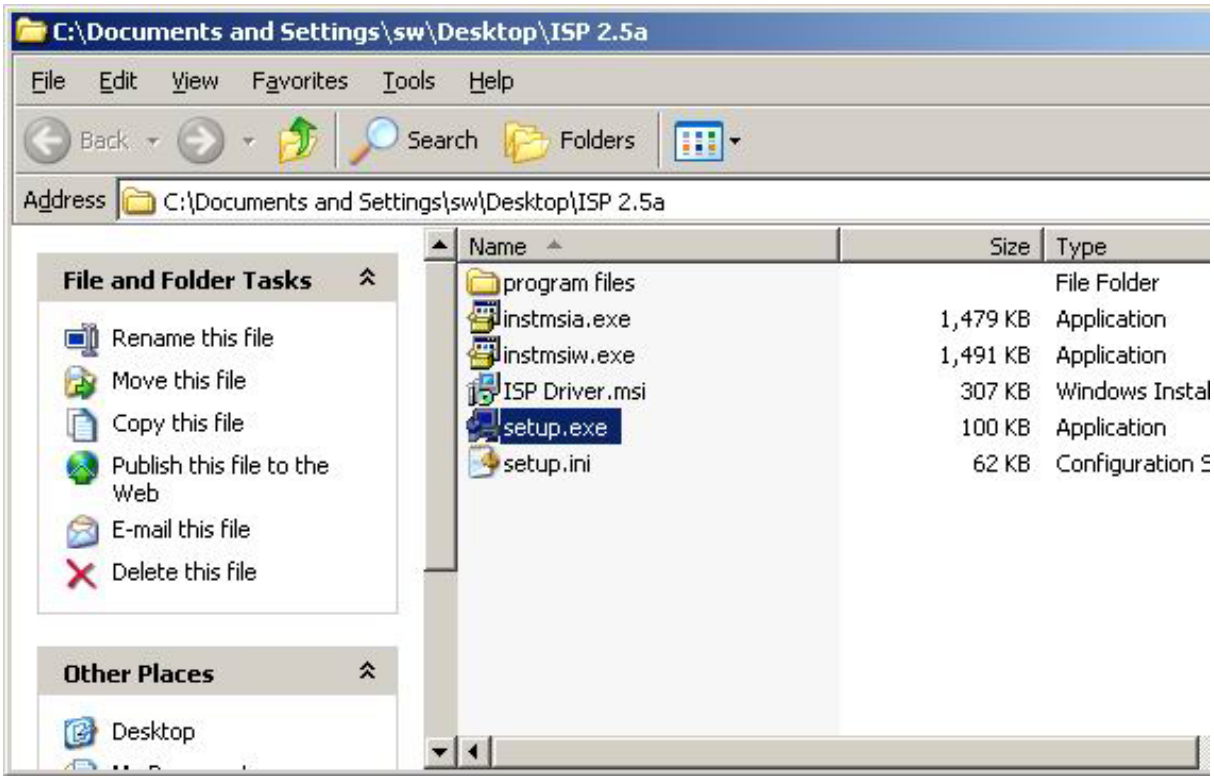


Fig 1.0

3. Press the "Next" button to continue; see Fig 1.1.

ISP Driver - InstallShield Wizard
Welcome to the InstallShield Wizard for ISP Driver
The InstallShield(R) Wizard will install ISP Driver on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

Fig 1.1

4. Press the "Change" button to change the install path if desired, and then press the "Next" button to continue; see Fig 1.2.

ISP Driver - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install ISP Driver to:
C:\Program Files\Myson Century\ISP\
Change...
InstallShield
< Back
Next >
Cancel

Fig 1.2

5. Press the "Install" button to continue; see Fig 1.3.

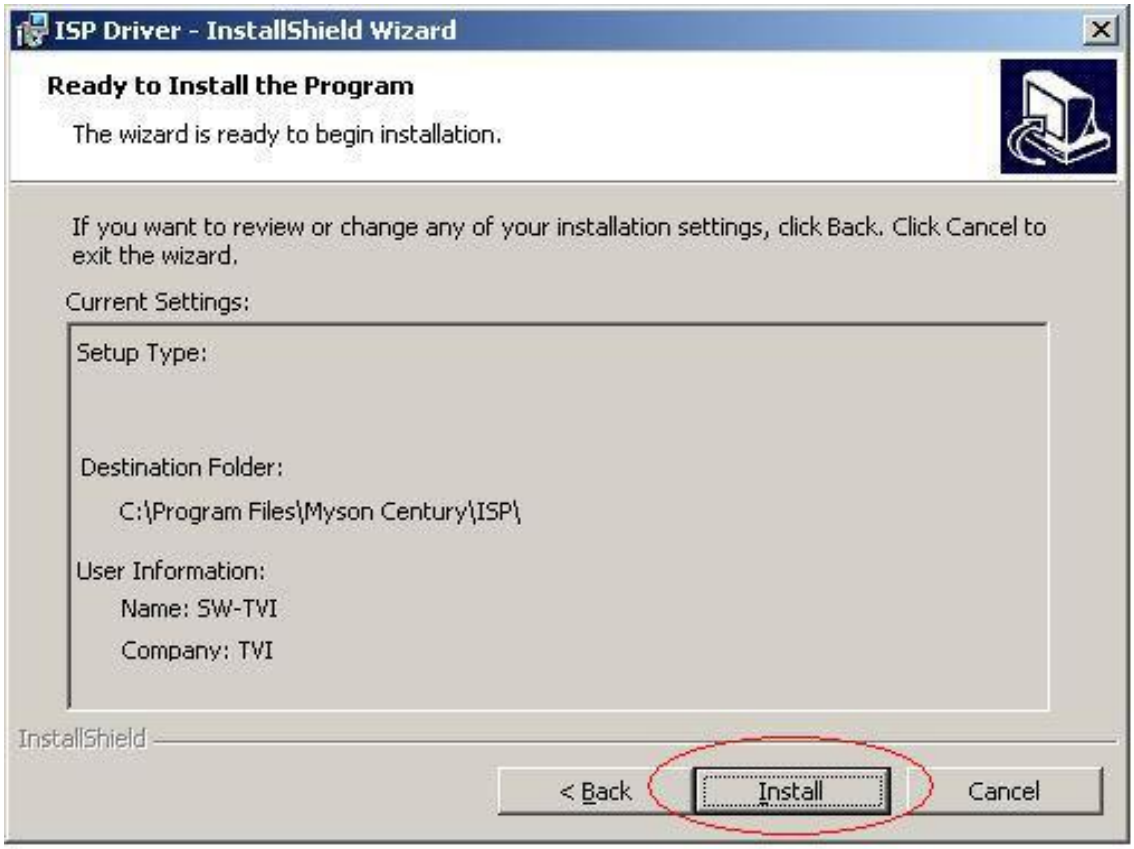


Fig. 1.3

6. When installation has finished, press the "Finish" button; see Fig 1.4.

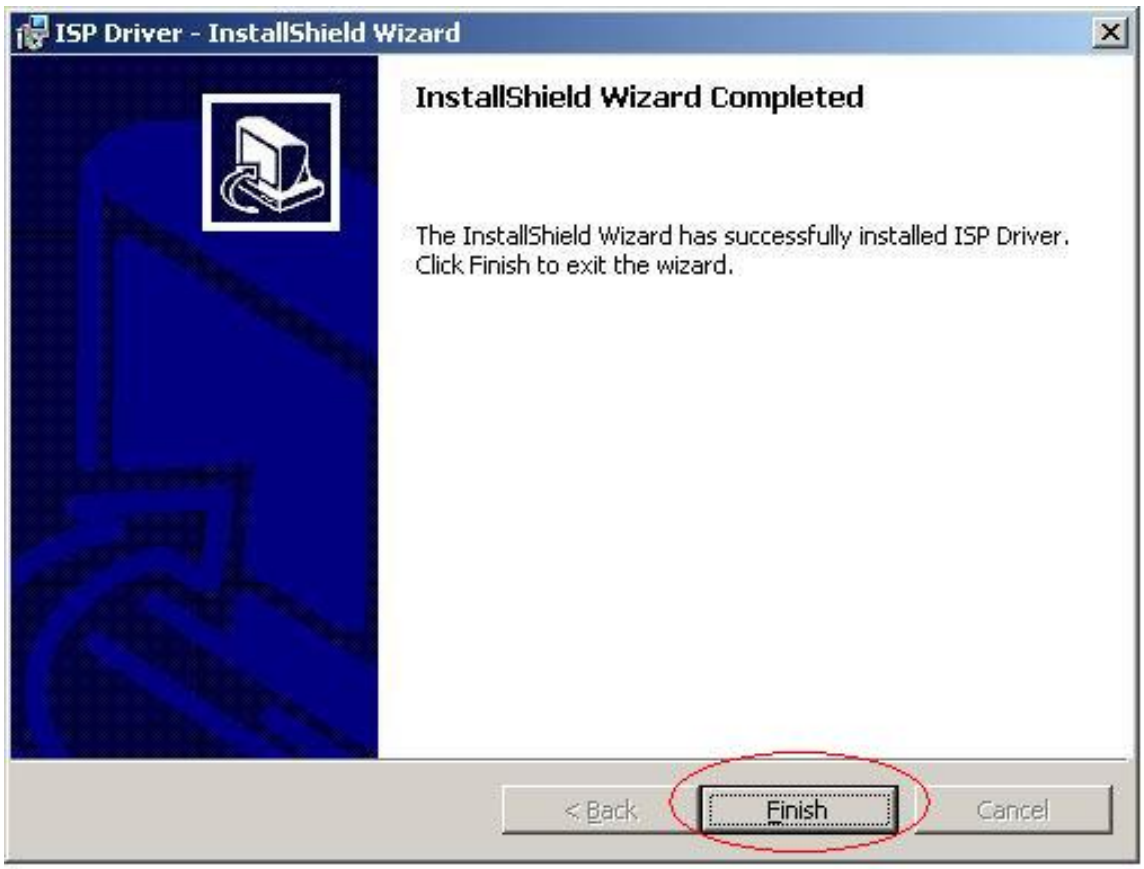

ISP Driver - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed ISP Driver. Click Finish to exit the wizard.
< Back
Finish
Cancel

Fig. 1.4

Appendix B: How to use software to upgrade the BIOS:

1. After installation, shortcuts may be found in the settings path or the program menu (default setting); see Fig 2.1.

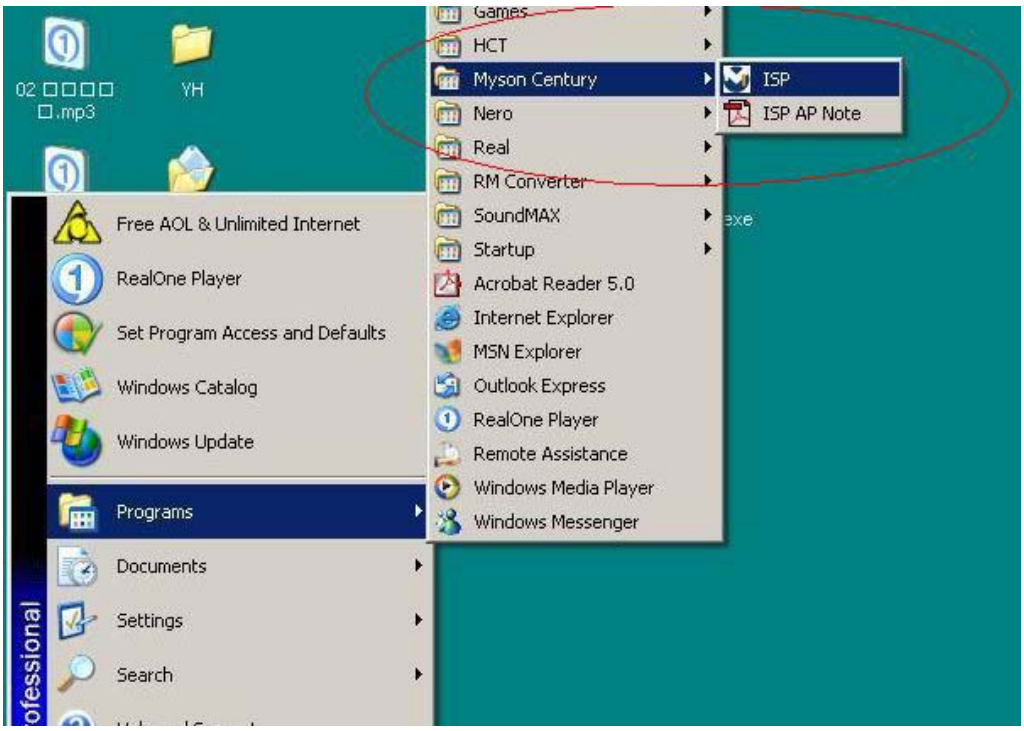


Fig. 2.1

2. The security file is a key to use ISP functions; press the "OK" button. See Fig 2.2.

Fig. 2.2

3. The warning shown in Fig. 2.3 is used to remind the user that a CPU rate that differs from IIC protocol may cause the ISP functions to fail; press the "OK" button.

Fig. 2.3

4. As shown in Fig. 2.4, press the "Create Security File" button to key in a security code, and use the slider bar to adjust the speed of the IIC bus.

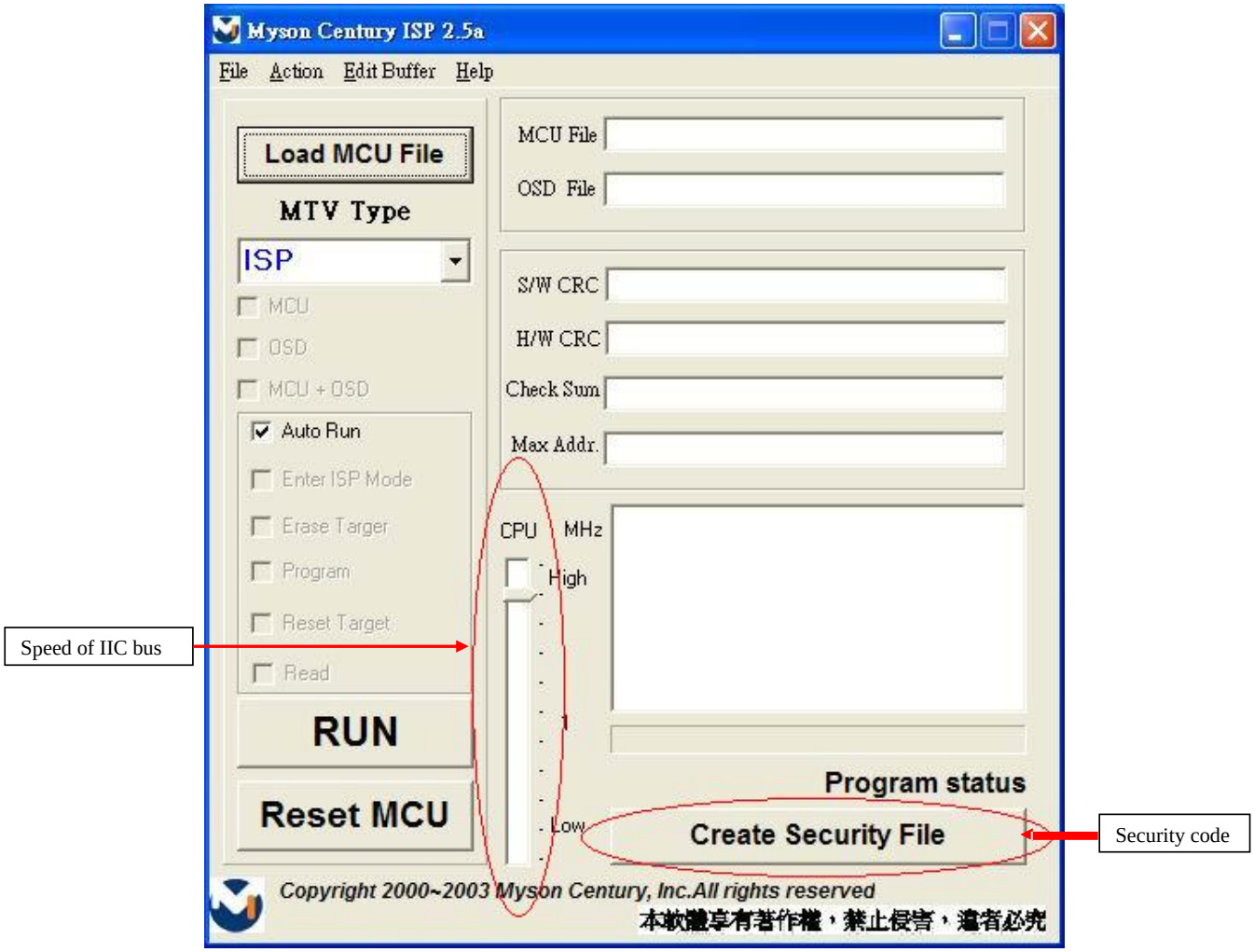


Fig. 2.4

5. Fig 2.5 shows the settings for the ISP software's security code. It requires two command numbers, and the commands must be keyed in sequentially: 7C, 4C, 77. The command numbers and commands must be set by the user while coding. For more details, please refer to section 6 boot code of ISP.

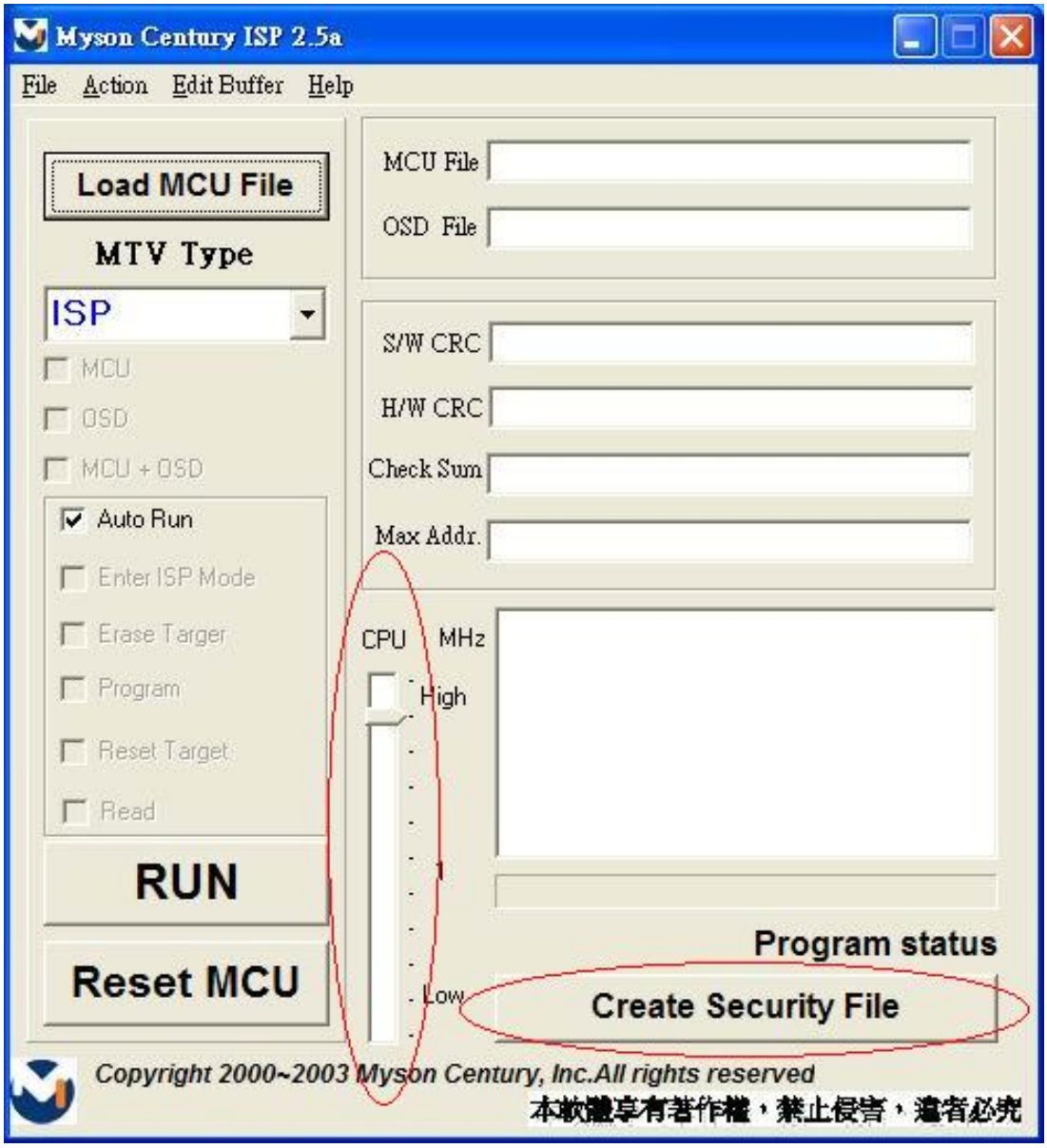


Fig. 2.5

Appendix C: Using ISP to program MCU

1. As shown in Fig. 3.1, select the MTV type first, load the binary or intel hex file to be programmed into the MCU, click "OK," then press the "RUN" button.

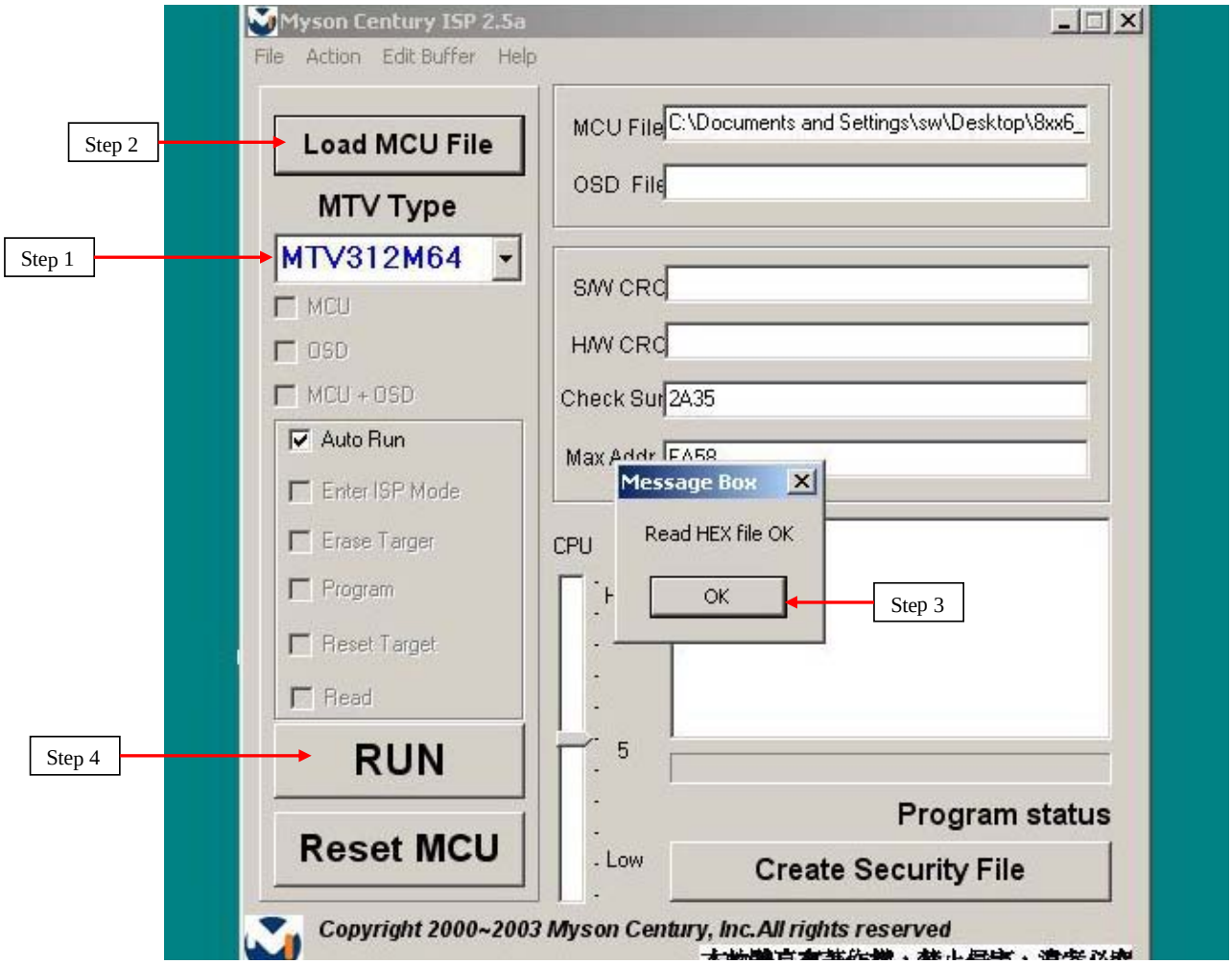


Fig. 3.1

2. If the user changes the MTV type, the file must be loaded again, as the previously loaded file will be cleared.
3. CRC (cyclic redundancy check): the host can check the result in the CRC register instead of reading every byte in flash. The Check MCU CRC OK message indicates that the host has verified the program's CRC; see Fig.3.2.

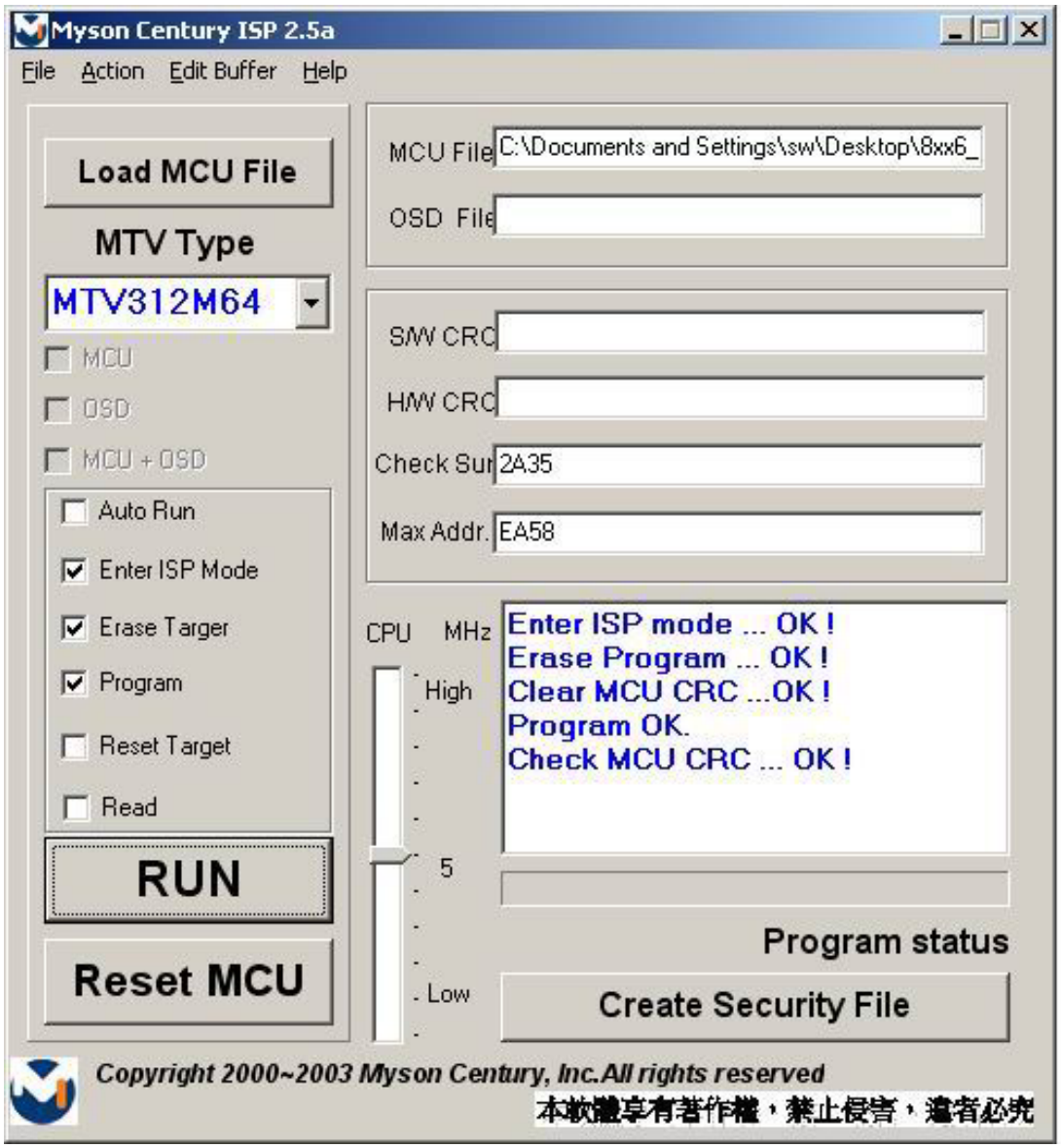
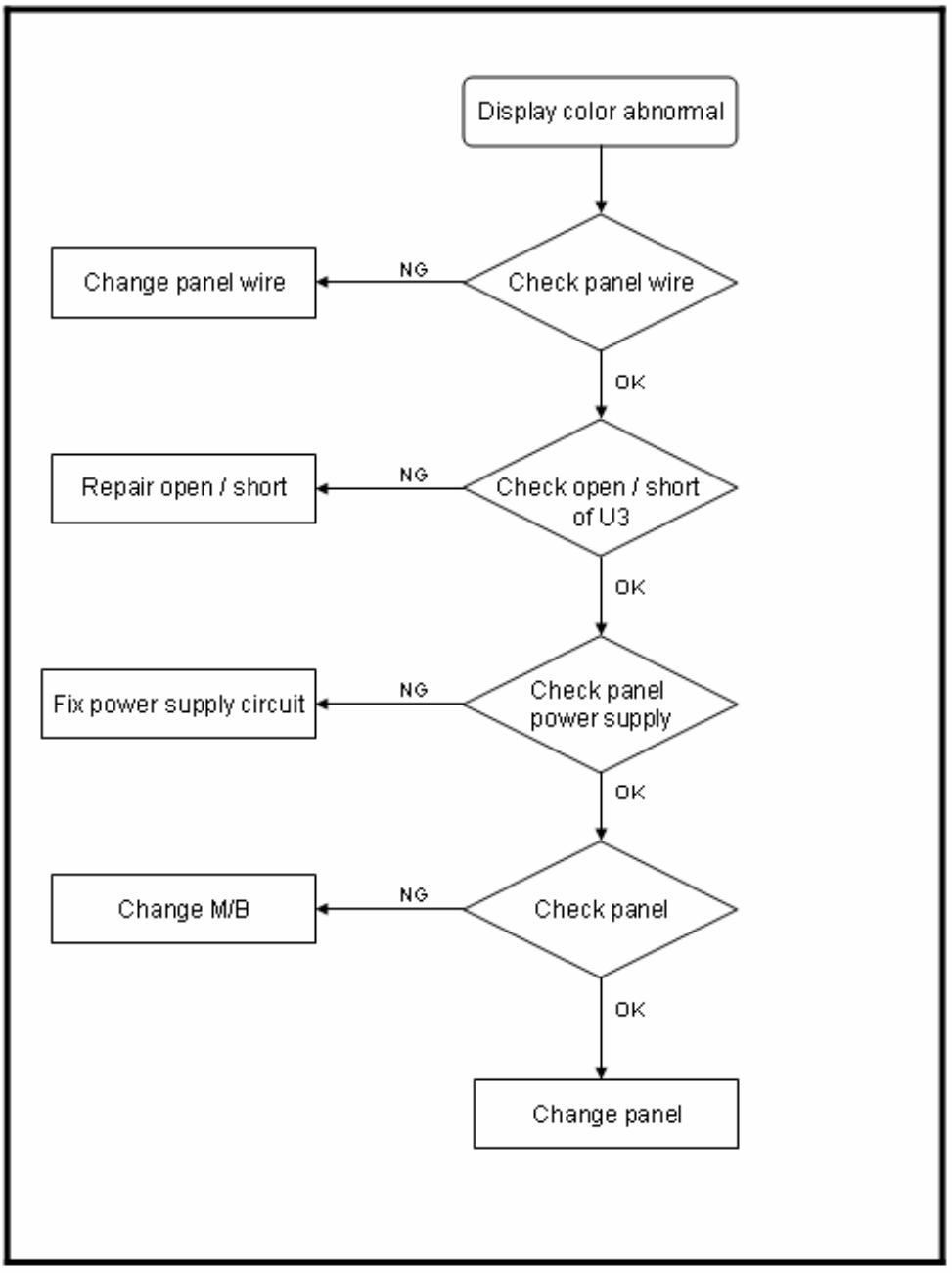


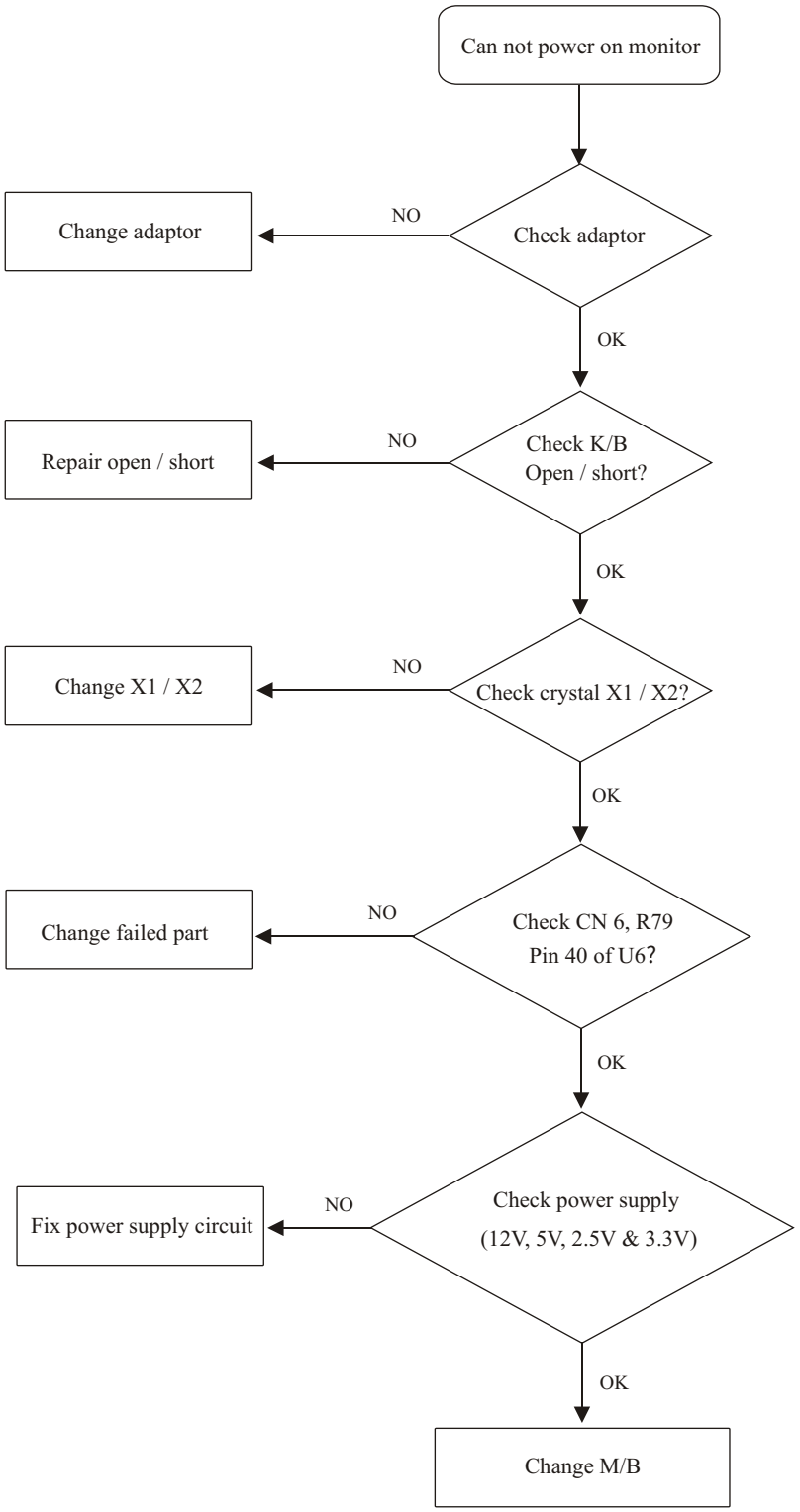
Fig. 3.2

6. Troubleshooting Flow Chart

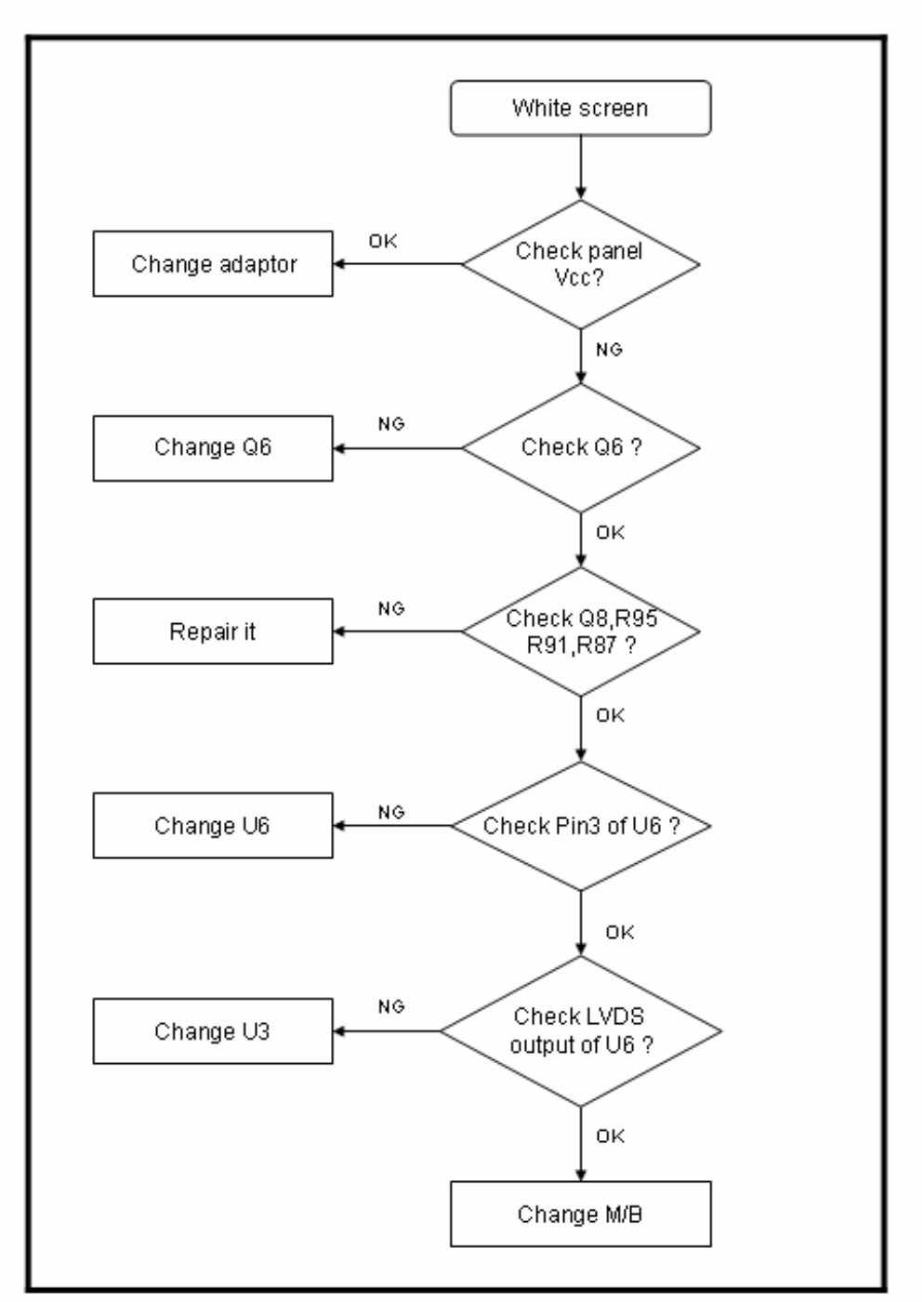
1. Display color abnormal:



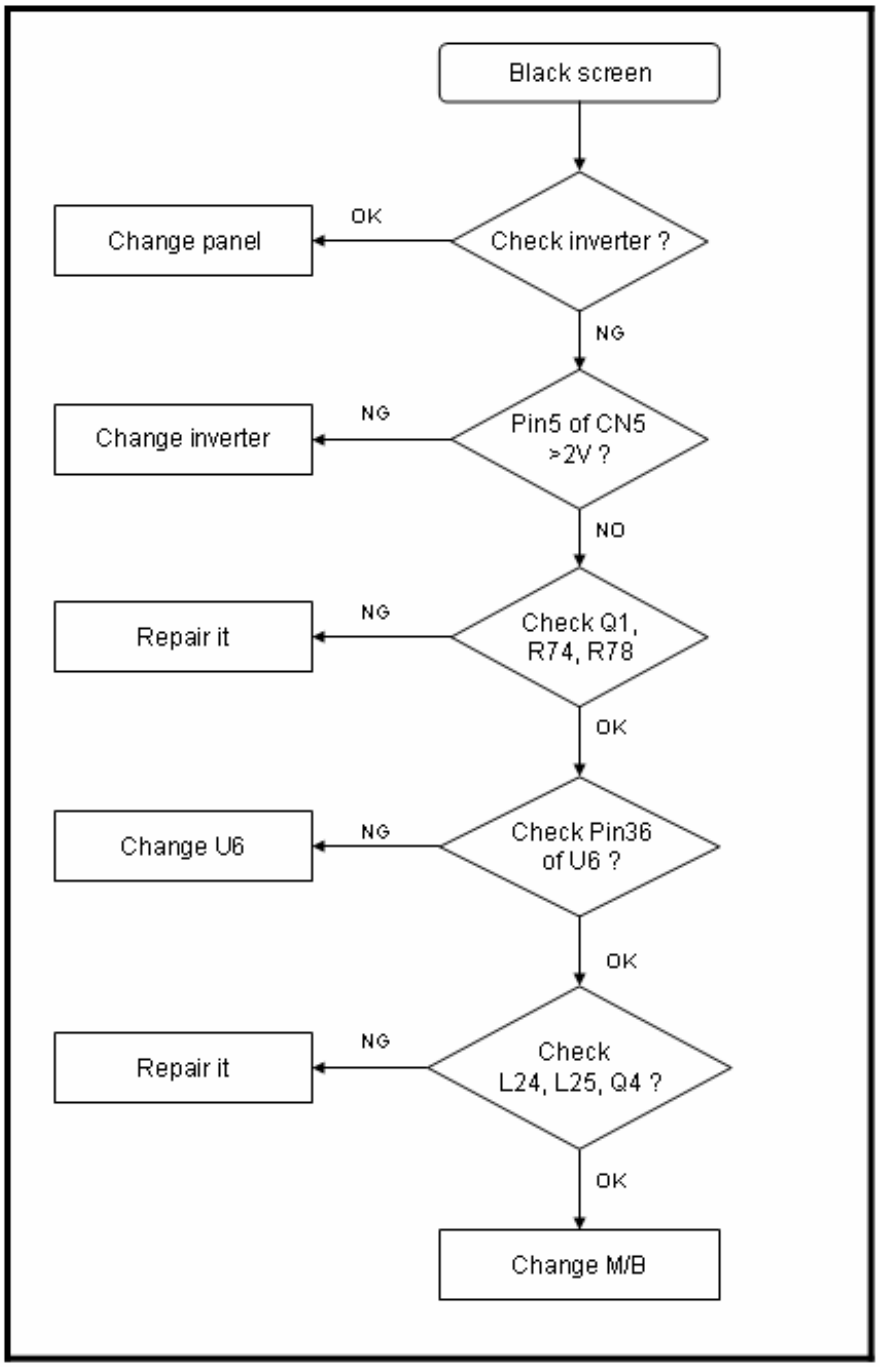
2. Monitor cannot power on



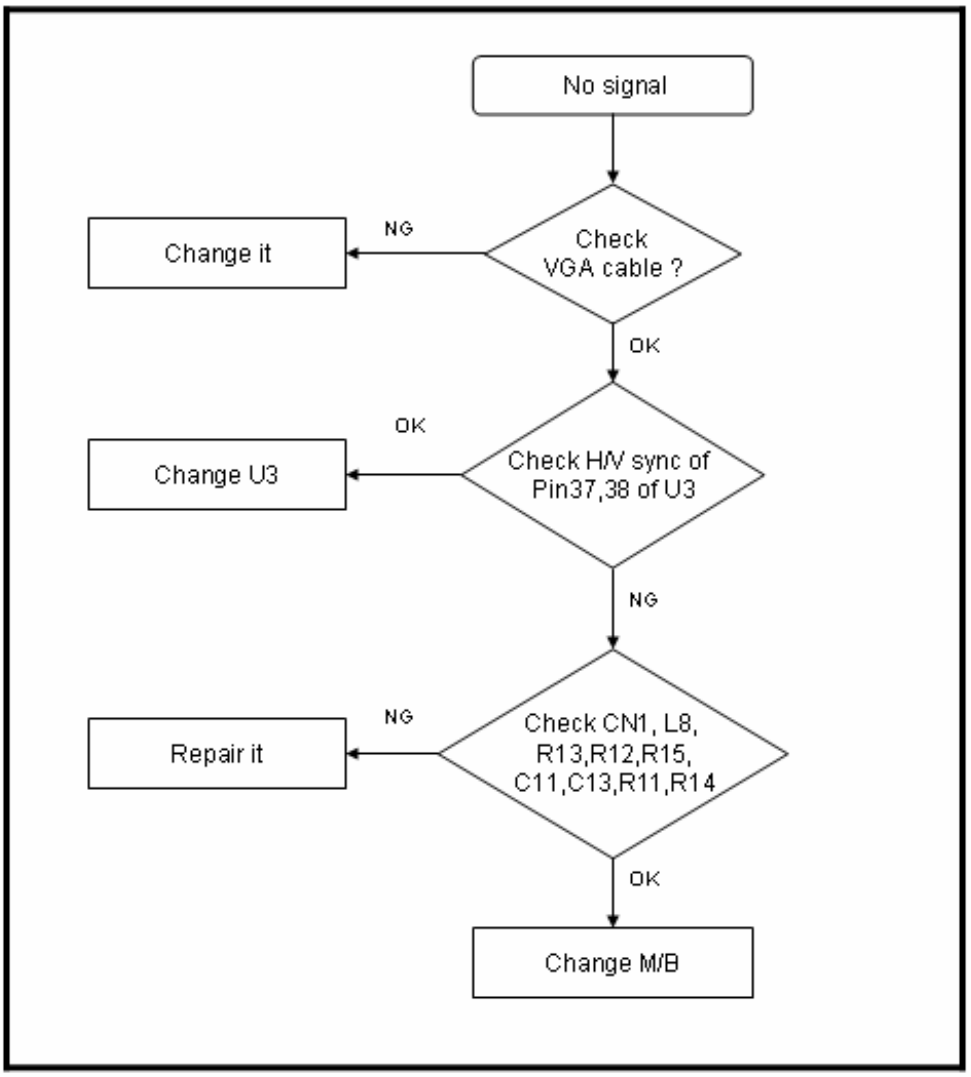
3. Monitor white screen



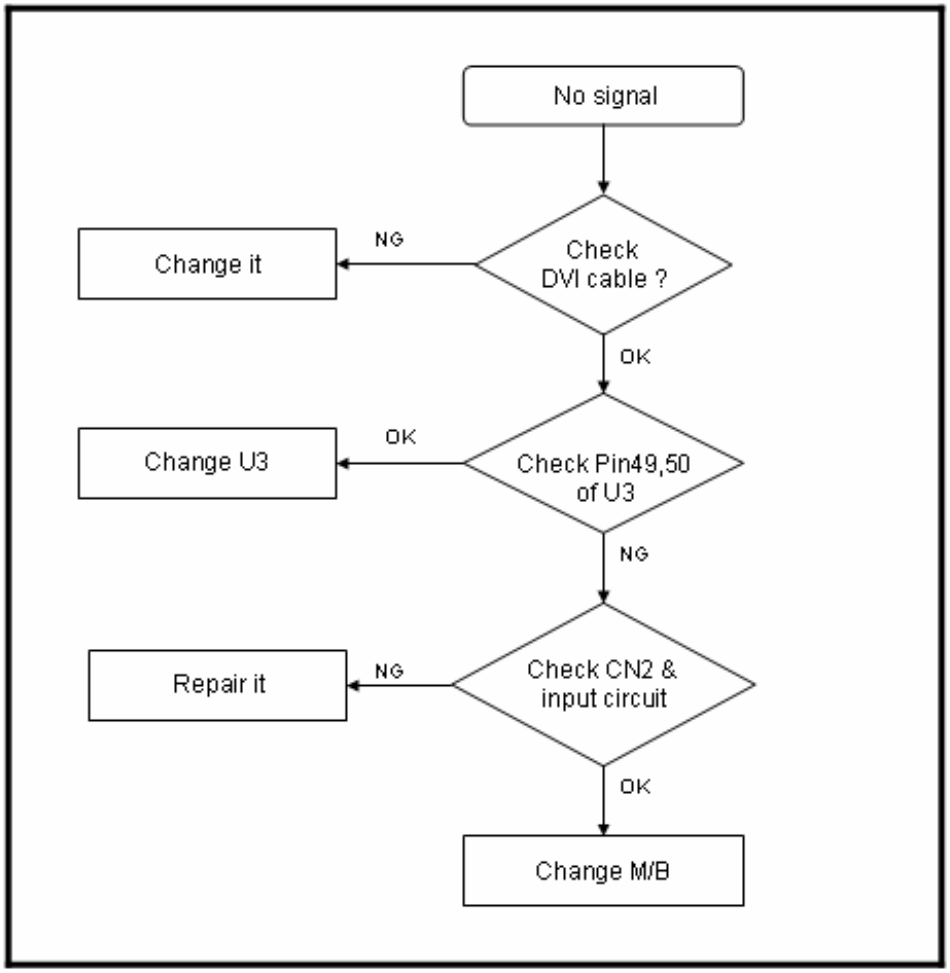
4. Monitor black screen



5. Analog input: always shows NO SIGNAL:



6. Digital input: always shows NO SIGNAL



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VX724-1 for "AUO V.8 (4ms) Panel")

ViewSonic Model Number: VS10049

Rev: 1c

Serial No. Prefix: PSN

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Board Assembly:**	Button board	Added 07/15/05	B-00003439	1HYJZZZVSF7	Button board		1
2		Main Board		B-00002833	10MBZZZVST8	main board		1
3		Over driver board	Update Vendor P/N 07/15/05	B-00002834	~~1HYTZZZVSJ8~~ 1HYJZZZVSJ8	Over driver board		1
4		Power board		B-00002481	AS02B012DA6	power board		1
5	**Cabinets:**	Back cover assy		C-BC-0302-0598	37L7VBCVS54	back cover		1
6		Front bezel assy		C-FP-0301-9935	33L7VFBVS53	front bezel ass'y		1
7		I/O Cover	Added 07/15/05	M-CV-0830-2540	EBL7V026016	I/O Cover		1
8		Base Assembly	Added 07/15/05	C-BS-0303-0536	26L7VSAVS33	stand assy		1
9		Stand cover rear		M-CV-0830-2541	EBL7V025010	stand cover		1
10	**Cables:**	Cable for MB-B/B (8P/10P. Rev.1A)		M-MS-0808-9398	DDL7VDTH009	M/B-B/B cable		1
11		Cable for MB-LCD (30P. Rev.1A)		CB-00002525	DD0L9VLC015	MB-LCD cable		1
12		Cable for MB-over driver		CB-00002522	DD0L9V0B000	MB-over driver cable		
13		DVI cable	Added 07/15/05	CB-00003440	DD0L0TTH108	DVI cable		1
14		VGA cable		M-MS-0808-9399	DDL7VDPC005	VGA cable		1
15	**Documentation:**	User manual + CD wizard		DC-00002835	HGL7V021019	user's manual		1
16	**Electronic Components:**	17" AUO TFT LCD panel M170EG01 V8 (4ms)		E-00002836	AA000170101	LCD panel		1
17	**Hardware:**	Screw M3.0*5.0-I (NI) GP		M-SCW-0824-0728	MM30050IBJ3			23
18		Screw M3.0*7.0-B(NI)	Update Vendor P/N 07/15/05	HW-00002837	~~MM30070BBJ1~~ MF30070BBJ1			14
19	**Miscellaneous:**	4ms sticker		M-00002524	HCL9V007018	4ms sticker on carton		1
20		~~LCD film L9V~~	Removed and Replaced Part 07/15/05	~~M-MS-0808-9682~~	~~JXL9V001010~~	~~LCD panel film~~		~~1~~
		LCD film L9V		M-MS-0808-7399	JXL7V003017	LCD panel film		1
21	**Packing Material:**	Carton		P-00002838	HFL7V013015	carton		1
22		End cap (L)		P-FM-0602-0875	HBL7V007011	cushion		1
23		End cap (R)		P-FM-0602-0876	HBL7V008018	cushion		1
24		EPE bags		P-00000434	HAL7V005018	EPE bags		1
25	**Plastics:**	Rubber Plug Vesa	Added 07/15/05	M-00003441	GAL7V013011	Rubber Plug Vesa		4

M-Model (xxx-1M)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0224	DM333181G97	Power cord		1

P-Model (xxx-1P)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0224	DM333181G97	Power cord		1
2	**Documentation:**	User manual + CD wizard		DC-00003442	HGL7V0020012	user's manual		1

G-Model (xxx-1G)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0306	DM333181S01	Power cord		1
2	**Documentation:**	Address Label		DC-00003443	HCL7V024014	ADDRESS LABEL		1
3		QC-Pass Label		DC-00003444	HCL7V026017	QC-PASS LABEL		1
4		Warranty Card		DC-00003445	HDL7V005011	WARRANTY CARD		1
5		User manual + CD wizard		DC-00003342	HGL7V0020012	user's manual		1
6	**Miscellaneous:**	Warranty Sticker		M-00003446	HCL7V023018	WARRANTY STICKER		1

E-Model (xxx-1E)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0227	DM333181801	Power cord		1
2	**Documentation:**	User manual + CD wizard		DC-00003342	HGL7V0020012	user's manual		1

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior versions.

RECOMMENDED SPARE PARTS LIST (VX724-1 for "QDI (8ms) Panel")

ViewSonic Model Number: VS10049

Rev: 1c

Serial No. Prefix: PSN

Item	Description		ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Universal number#	Q'ty
1	**Board Assembly:**	Power board		B-00003429	AS02B012D75	Power board		1
2		Button board		B-00003439	1HYJZZZVSF7	Button board		1
3		Main Board		B-00003448	1SL7VDMB001	Main board		1
4		Over drive board		B-00003449	1SL7VD0B005	OD board		1
5		Main Board (FOR L7VDQ-51,2523)QDI	Added on 06/15/06	B-00006095	1SL7VDMB010	main board		1
6		Sub Board - Over Drive Board (FOR L7VDQ-51)	Added on 06/15/06	B-00006096	1SL7VD0B013	OD board		1
7	**Cables:**	Cable for MB-over driver		CB-00002522	DD0L9V0B000	Cable for MB-OD/B		1
8		Cable for MB-LCD (30P. Rev.1A)		CB-00002525	DD0L9VLC015	Cable for MB-LCD		1
9		DVI cable		CB-00003440	DD0L0TTH108	DVI cabe		1
10		DVI cable		CB-00003440	DD0L0TTH108	DVI cabe		1
11		Cable for MB-B/B (8P/10P. Rev.1A)		M-MS-0808-9398	DDL7VDTH009	Cable for MB-B/B		1
12		VGA cable		M-MS-0808-9399	DDL7VDPC005	VGA cable		1
13		VGA cable		M-MS-0808-9399	DDL7VDPC005	VGA cable		1
14		CABLE MB-BUTTON(8P/10P,240MM)L7VD GP	Added on 06/15/06	CB-00006098	DDL7VDBU107	cable for Button-MB		1
15	**Cabinets:**	Back Cover Assembly		C-BC-0302-0598	37L7VBCVS54	back cover		1
16		Base Assembly		C-BS-0303-0536	26L7VSAVS33	stand assy		1
17		I/O Cover		M-CV-0830-2540	EBL7V026016	I/O Cover		1
18		I/O Cover		M-CV-0830-2540	EBL7V026016	I/O Cover		1
19		Stand cover rear		M-CV-0830-2541	EBL7V025010	stand cover		1
20		Front bezel assy		C-FP-0301-9935	33L7VFBVS53	front bezel ass'y		1
21	**Documents:**	QSG+CD (USA)L7VDQ-5	Added on 06/15/06	DC-00006097	HGL7VD04015	user guide		1
22	**Electronic Components:**	17" QDI TFT LCD panel QD170EL07 Rev:09 (8ms)		E-00002216	AA17EL07055	LCD panel		1
23		LCD(TFT) 17" QD17EL07 REV:11 V08" GP	Added on 06/15/06	E-00006099	AA17EL07195	LCD panel		1
24	**Hardware:**	Screw M3.0*7.0-B(NI)		HW-00002837	MF30070BBJ1			14
25		Screw M3.0*5.0-I (NI) GP		M-SCW-0824-0728	MM30050IBJ3			23
26	**Miscellaneous:**	4ms sticker		M-00002524	HCL9V007018	4ms sticker on carton		1
27		4ms sticker		M-00002524	HCL9V007018	4ms sticker on carton		1
28		Rubber Plug Vesa		M-00003441	GAL7V013011	Rubber Plug Vesa		4
29		LCD film L7VC		M-MS-0808-7399	JXL7V003017	LCD FILM		1
30	**Packing Material:**	EPE bags		P-00000434	HAL7V005018	EPE bags		1
31		Craft Carton		P-00002838	HFL7V013015	carton		1
32		Generic Box	Added on 06/15/06	P-00002515	20653			
33		Generic Foam Set	Added on 06/15/06	P-00001347	30833			
34		End cap (L)		P-FM-0602-0875	HBL7V007011	cushion		1
35		End cap (R)		P-FM-0602-0876	HBL7V008018	cushion		1

M-Model (xxx-1M)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0224	DM333181G97	Power cord		1

P-Model (xxx-1P)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0224	DM333181G97	Power cord		1
2	**Documentation:**	User manual + CD wizard		DC-00003447	HGL7VD03019	User manual		1

G-Model (xxx-1G)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0306	DM333181S01	Power cord		1
2	**Documentation:**	Address Label		DC-00003443	HCL7V024014	ADDRESS LABEL		1
3		QC-Pass Label		DC-00003444	HCL7V026017	QC-PASS LABEL		1
4		Warranty Card		DC-00003445	HDL7V005011	WARRANTY CARD		1
5		User manual + CD wizard		DC-00003447	HGL7VD03019	User manual		1
6	**Miscellaneous:**	Warranty Sticker		M-00003446	HCL7V023018	WARRANTY STICKER		1

E-Model (xxx-1E)

Item	Description		ECR/ECN	ViewSonic P/N	Ref.P/N	Location	Universal number#	Q'ty
1	**Accessories:**	Power Cord		A-PC-0106-0227	DM333181801	Power cord		1
2	**Documentation:**	User manual + CD wizard		DC-00003447	HGL7VD03019	User manual		1

Remark 1: Above listed items are examples, supplier can expand the rows to add more necessary items.

Remark 2: All revised RSPLs with newly added items or any change made should be highlighted and correlated with the ECN/ECR approved by ViewSonic Corporation. This is to eliminate repeated cross checks of each item between this version and prior version.

BOM LIST (VX724-1 for "AUO Panel")

ViewSonic Model Number: VS10049-1W

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	#N/A	1L7VDZAVS81	L7VD LCD M+OD((L7VDA-5,AU)US(VX724)			
2	B-00002839	29L9I0MB017	L9I M/B ASSY(FOR L7VDA-5 REALTEK,2523)AU			1
3	#N/A	39L9IDP0056	L9I M/B DIP ASSY(L9VDA-5 REALTEK)2523			1
4	#N/A	41L9ISS0053	L9I M/B S/S ASSY(L9VDA-5 REALTEK)2523			1
5	#N/A	CC62204MD23	CAP ELEC 22U 25V(+-20%,105C,5*11,2000HR)	C34,C46,C50,C53,C59,C84,EC1,EC2,EC3,EC5,EC6		11
6	#N/A	CC622L4MD06	CAP ELEC DIP 22U 25V(+-20%,105C,5*11)LXN	C34,C46,C50,C53,C59,C84,EC1,EC2,EC3,EC5,EC6		11
7	#N/A	CC71004MD68	CAP ELEC 100U 25V +-20%,105C,6*11,LESR	C70		1
8	#N/A	CC710L4MD08	CAP ELEC 100U 25V(+-20%,105C,6*11)LXN	C70		1
9	#N/A	CC73303MD51	CAP ELEC 330U 16V(+-20%,105C,8*11,2000HR	C6,EC4		2
10	E-L-0407-1563	DC04725K002	CHOKE COIL 47UH(2.5A,+-10%,T07473)	L2		1
11	#N/A	BG624576031	CRYSTAL DIP 24.576MHZ(30PPM,20PF,49/US)	Y1		1
12	#N/A	BG611059319	CRYSTAL DIP 11.0592MHZ(+-30PPM,49/US)	Y2		1
13	#N/A	DFHD06MR247	CONN DIP HEADER 6P 2R MR(P2.5,H6.0)	CN1		1
14	#N/A	DFDS15FR050	CONN D-SUB 15P 3R FR,P1.15,H12.55,NO SRW	CN2		1
15	#N/A	DFDI30FR049	CONN DVI-I DIP30P 3R FR(P1.905,H10.04)	CN4		1
16	M-MS-0808-9809	DFHD30MR259	CONN DIP HEADER 30P 2R MR(P2.0,H4.0)	CN5		1
17	M-MS-0808-9810	DFHD10MR316	CONN DIP HEADER 10P 1R MR(P2.0,H4.1)	CN6		1
18	#N/A	AZL7VD0A103	L7VDA-5 SW BIOS IMAGE(R2523,AU V2) N/A			1
19	#N/A	22L9V00B007	L9V OVER DRIVER/B ASSY(FOR L7VDA-5)			1
20	#N/A	32L9V0SS017	L9V OVER DRIVER/B S/S ASSY			1
21	#N/A	AZL7VD0A308	L7VDA-5 SW BIOS IMAGE(OD AU M170EG01)			1
22	B-CB-0206-0188	23L7VBB0034	L7VD BUTTON/B ASSY			1
23	B-00002481	AS02B012DA6	ADD/INV,FSP035-1PI01H ,90~264V REV1A			1
24	#N/A	22L7VDLA004	L7VDA-5 LCD MODULE ASSY(AU)			1
25	C-FP-0301-9935	33L7VFBVS53	L7VD FRONT BEZEL ASSY			1
26	C-FP-0301-0992	EAL7V019019	BEZEL L7VD(EAL7V019,REV3A)			1
27	C-FP-0301-0994	EAL7V020017	MIDDLE BEZEL L7VD(EAL7V020,REV3A)			1
28	M-MS-0808-9401	EBL7V028019	LENS L7VD(EBL7V028,REV3A)			1
29	PL-BT-0706-0165	EBL7V027012	CONTROL BUTTON L7VD(EBL7V027,REV3A)			1
30	M-MS-0808-9243	FEL7V003019	LOGO FRONT-VSC-38MM L7VC(FEL7V003,REV3A)			1
31	M-MS-0808-9402	FEL7V007014	BIRD LOGO L7VD(FEL7V007,REV3A)			1
32	C-BC-0302-0598	37L7VBCVS54	L7VD BACK COVER ASSY			1
33	M-CV-0830-2543	EAL7V021013	LCD COVER L7VD(EAL7V021,REV3A)			1
34	M-MS-0808-9253	FEL7V005011	LOGO PLATE ELLIPSE L7VC(FEL7V005,REV3A)			1
35	M-MS-0808-9411	FBL70008014	LOCK METAL L70B(FBL70008,REV3A) GP			1
36	M-CV-0830-2542	FBL7V042011	HINGE -L L7VD(FBL7V042,REV3B)			1
37	M-CV-0830-2544	FBL7V043018	HNGE-BKT L7VD(FBL7V043,REV3A)			1
38	M-CV-0830-2545	FBL7V044014	HINGE-R L7VD(FBL7V044,REV3B)			1
39	M-SCW-0824-6822	MF30070BBJ1	SCREW F3.0*7.0-B (NI)			4
40	M-SCW-0824-6760	MS30060IM18	SCREW F3*6-I(NI)			4
41	M-MS-0808-9406	MM40080FL69	SCREW M4.0*8.0-F (BNI,NYLOK)			4
42	E-00002836	AA000170101	LCD(TFT) 17" M170EG01 REV:V8			1
43	M-BK-0805-0079	FAL7V014017	PCB BKT L7VD(FAL7V014,REV3A)			1
44	M-MS-0808-9405	FAL7V015013	PCB SHIELDING L7VD(FAL7V015,REV3A)			1
45	M-BK-0805-0077	FBL7V038014	LCD BKT-L L7VD(FBL7V038,REV3A)			1
46	M-BK-0805-0078	FBL7V039011	LCD BKT-R L7VD(FBL7V039,REV3A)			1
47	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI) GP			23
48	M-SCW-0824-0870	MS40070B808	SCREW M4*7B (BMC)NYLOK			4
49	M-SCW-0824-6825	MM30040IJ21	SCREW M3.0*4.0-I(BNI)			4
50	M-SCW-0824-6761	MM30030IBJ4	SCREW M3*3-I-NI			4
51	M-MS-0808-9247	EBL70023013	WIRE MOUNTS L70L-E(EBL70023,REV3A) GP			1
52	#N/A	GAL7V013011	RUBBER PLUG VESA L7VD (GAL7V013,REV3A)			4
53	M-MS-0808-8986	MBLI1004018	IO NUT LI1(MBLI1004,REV3A)			4
54	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI,WASHER)			1
55	#N/A	GAL7E002013	LCD RUBBER L7E(GAL7E002,REV3B)			1
56	#N/A	MBL9V001019	IO NUT L9VDA-5(MBL9V001,REV3A)M3*15*6			2
57	M-MS-0808-8984	FCL70004010	LCD MYLAR L70L-E(FCL70004,REV3A)			1
58	C-BS-0303-0536	26L7VSAVS33	L7VD STAND ASSY			1
59	#N/A	34L7VSSVS13	L7VD STAND SUB ASSY			1
60	M-BK-0805-0081	FBL7V040019	STAND BKT L7VD(FBL7V040,REV3B)			1
61	M-MS-0808-9403	FBL7V041015	STAND PLATE L7VD(FBL7V041,REV3A)			1
62	#N/A	GAL7V011018	RUBBER FOOT L7VD(GAL7V011,REV3A)			5
63	M-SCW-0824-6824	MM40060FL60	SCREW M4.0*6.0-F (BNI,NYLOK)			4
64	M-CV-0830-2547	EAL7V023016	STAND BASE L7VD(EAL7V023,REV3A)			1
65	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI) GP			2
66	M-CV-0830-2546	EBL7V024013	STAND COVER F L7VD(EBL7V024,REV3A)			1
67	M-SCW-0824-6760	MS30060IM18	SCREW F3*6-I(NI)			2
68	M-SCW-0824-6822	MF30070BBJ1	SCREW F3.0*7.0-B (NI)			9
69	M-MS-0808-9404	EBL7V029015	WIRE CLAMP L7VD(EBL7V029,REV3A)			2
70	#N/A	23L7VDCS013	L7VDQ-5 CHASSIS ASSY(QDI)			1
71	M-MS-0808-9398	DDL7VDTH009	CABLE MB-BUTTON(8P/10P,190MM)L7VD GP			1
72	CB-00002525	DD0L9VLC015	CABLE MB-LCD(30P,140MM)L9V-5 GP			1

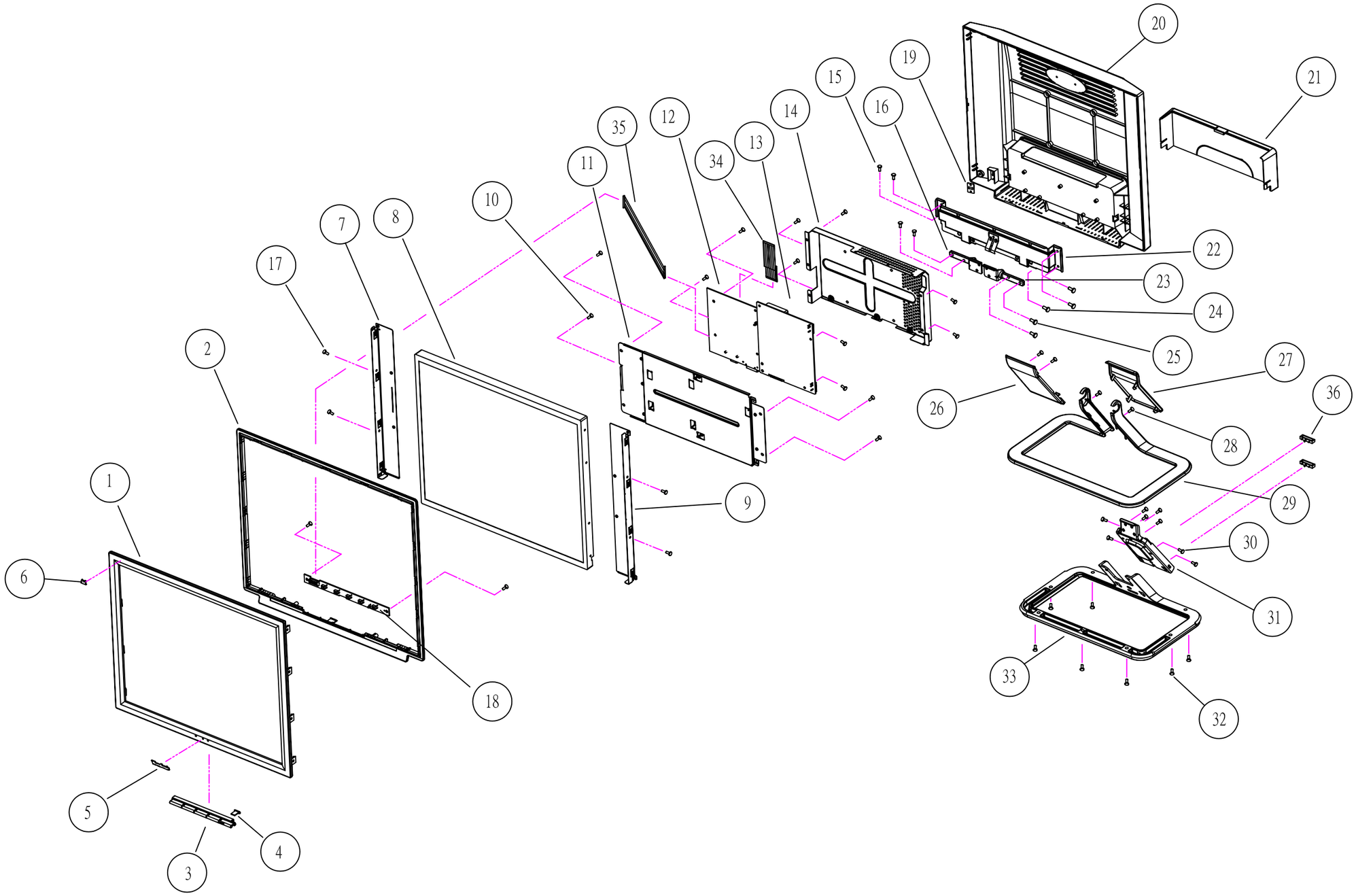
Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
73	M-SCW-0824-0813	MF30060BBJ6	SCREW F3.0*6-B(NI)			2
74	#N/A	EBL7V030013	PCB SPACER L7VD(EBL7V030,REV3A)			1
75	CB-00002522	DD0L9V0B000	CABLE MB-OVER DRIVER(30P,50MM)L9V-5 GP			1
76	#N/A	24L7VDPK002	L7VDA-5 PACKING ASSY(USA)			1
77	M-MS-0808-9399	DDL7VDPC005	CABLE MB-VGA (15/15P,1.8M)L7VD GP			1
78	A-PC-0106-0224	DM333181G97	POWER CORD 3P 1.8M(USA)V04VS350012180			1
79	M-CV-0830-2540	EBL7V026016	I/O COVER L7VD(EBL7V026,REV3A)			1
80	M-CV-0830-2541	EBL7V025010	STAND COVER R L7VD(EBL7V025,REV3A)			1
81	P-00000434	HAL7V005018	EPE BAG L7VD(HAL7V005,REV3A)			1
82	P-FM-0602-0875	HBL7V007011	END CAP(L) L7VD(HBL7V007,REV3A)			1
83	P-FM-0602-0876	HBL7V008018	END CAP(R) L7VD(HBL7V008,REV3A)			1
84	M-LB-0813-0747	HCL7V004013	CORE LABEL(HCL7V004,REV3A)			1
85	#N/A	HCL7V029016	ID LABEL VX724 L7VD(HCL7V029,REV3A)			1
86	M-LB-0813-0745	HCL7V002011	SERIAL LEBAL L7V(HCL7V002,REV3A)			1
87	M-LB-0813-1042	HCL7V019011	CARTON LABEL L7VC(HCL7V019,REV3B)			1
88	P-00002838	HFL7V013015	CARTON VX724 L7VD(HFL7V013,REV3A)			1
89	DC-00002835	HGL7V021019	CD+QSG VX724 USA L7VD(HGL7V021,REV3A)			1
90	#N/A	JXLM5003011	HANDLE LM5S(JXLM5003,REV 3B) GP			1
91	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC(JXL7V003,REV3B)			1
92	M-LB-0813-1043	HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)			1
93	#N/A	HFL7V011012	SPACE PLATE L7VD(HFL7V011,REV3A)			0.05
94	M-00002524	HCL9V007018	4MS STICKER VX924 L9VD(HCL9V007,REV3A)			1

BOM LIST (VX724(QDI))

ViewSonic Model Number: VS10049
Rev: 1c
Serial No. Prefix: PSN

Item	ViewSonic P/N	Ref. P/N	Description	Location	Universal number#	Q'ty
1	N/A	1L7VDZXVS49	L7VDQ-4 LCD MONITOR(USA) GP			
2	N/A	21L9TAMB0C1	L9TA M/B ASSY(FOR L7TA-D)RTD2523 GP			1
3	N/A	31L9TASS0B8	L9TA M/B S/S ASSY(FOR L7TA-D)RTD2523 GP			1
4	N/A	CC62204MD23	CAP EC 22U 25V(+-20%,105C,5*11,2KHR)GP	C34,C46,C50,C53,C59,C84, EC1,EC2,EC3,EC5,EC6		11
5	N/A	CC71004MD68	CAP EC 100U 25V(+-20%,105C,6*11,LESR) GP	C70		1
6	N/A	CC73303MD51	CAP EC 330U 16V(+-20%,105C,8*11,2KH)GP	C6		1
7	N/A	BG624576104	XTAL DIP 24.576MHZ(+-30PPM,49/S) GP	Y1		1
8	N/A	BG611059327	XTAL DIP 11.0592MHZ(+-30PPM,49/S) GP	Y2		1
9	N/A	DFHD08FR102	CONN DIP HEADER 8P 2R FR(P2.54,H5.0) GP	CN1		1
10	N/A	DFDS15FR041	CONN D-SUB 15P 3R FR(P1.15,H12.55) GP	CN2		1
11	N/A	DFDS15FR076	CONN D-SUB 15P 3R FR(P1.15,H12.55) GP	CN2		1
12	N/A	DFDI30FR022	CONN DVI-I DIP30P 3R FR(P1.905 H10.04)GP	CN4		1
13	N/A	DFDI30FR103	CONN DVI-I DIP30P 3R FR(P1.905,H10.04)GP	CN4		1
14	N/A	DFHD30MR267	CONN DIP HEADER 30P 2R MR(P2.0,H4.0) GP	CN5		1
15	N/A	DFHD10MR324	CONN DIP HEADER 10P 1R MR(P2.0,H4.1) GP	CN6		1
16	N/A	22L9V00B082	L9V OVER DRIVER/B ASSY(L7VDQ-4) GP			1
17	N/A	32L9V0SS033	L9V OD/B S/S ASSY(L9E-A5)VTIO3601 GP			1
18	N/A	AZL7VDV0005	L7VDQ-4 SW BIOS (OD/B QDI V11)			1
19	N/A	23L7VDBB001	L7VD BUTTON/B ASSY GP			1
20	N/A	DFHD08MR319	CONN DIP HEADER 8P 1R MR(P2.0,H4.1) GP	CN1		1
21	N/A	BEYG0014DA0	LED(DIP) YELLOW/GREEN(L-3WYGW-F01) GP	LED1		1
22	N/A	DAL7VDTB113	PCB(BUTTON) L7VD TL(1L,180*15,REVA) GP			1
23	N/A	DHP0002B205	SWITCH PUCH BUTTON(PT-002-B2,50MA,12V)GP	SW1,SW2,SW3,SW4,SW5		5
24	B-00003993	AS05B312D00	ADP/INV,FSP043-2PI01 90~264V GP			1
25	N/A	24L7VDLB002	L7VDQ-4 LCD BEZEL ASSY GP			1
26	N/A	34L7VDLB002	L7VDQ-4 LCD BEZEL SUB ASSY GP			1
27	N/A	36L9V0PB008	L9VDQ-4 PCB SHIELDING ASSY GP			1
28	M-BK-0805-0077	FBL7V038014	LCD BKT-L L7VD(FBL7V038,REV3A)GP			1
29	M-BK-0805-0078	FBL7V039011	LCD BKT-R L7VD(FBL7V039,REV3A)GP			1
30	M-MS-0808-8986	MBLI1004018	IO NUT LI1(MBLI1004,REV3A)GP			4
31	M-SCW-0824-6802	MM30040IBJ9	SCREW M3.0*4.0-I(NI) GP			4
32	M-SCW-0824-0813	MF30060BBJ6	SCREW F3.0*6-B(NI)GP			7
33	M-SCW-0824-0726	MF30080BBJ5	SCREW F3.0*8L,B,NI GP			2
34	M-SCW-0824-6799	MM35080BBW2	SCREW M3.5*8-B (NI,WASHER)GP			1
35	M-SCW-0824-6761	MM30030IBJ4	SCREW M3*3-I-NI GP			4
36	CB-00004152	DD0L9VLC023	CABLE LVDS(30P,140MM,LINKTEC,AU)L9VA GP			1
37	N/A	DDL9VDBU005	CABLE MB-BUTTON(8P/10P,190MM) L9VD GP			1
38	CB-00002522	DD0L9V0B000	CABLE MB-OVER DRIVER(30P,50MM)L9V-5 GP			1
39	N/A	FCL7G001016	AL FOIL L7G(FCL7G001,REV3A)HAN GP			1
40	N/A	GAL7E002013	LCD RUBBER L7E(GAL7E002,REV3B)GP			1
41	N/A	FCL9V002016	POWER MYLAR L9VDQ-4(FCL9V002,REV3A) GP			1
42	M-SCW-0824-6825	MM30040IJ21	SCREW M3.0*4.0-I(BNI)GP			4
43	N/A	MM40060BCI6	SCREW M4.0* 6-B(NI,NYLOK) GP			4
44	N/A	FCM7T004014	AL FOIL M7T(FCM7T004,REV3A) GP			3
45	N/A	FCL9V005015	AL FOIL L9VDQ-4(FCL9V005,R3A)100*80 GP			1
46	M-MS-0808-9248	FCL7A001014	AL FOIL L7A(FCL7A001,REV3A) GP			1
47	N/A	GBL7B001017	VGA GASKET L7B(GBL7B001,REV3A)GP			2
48	N/A	25L7VDLC000	L7VDQ-4 LCD COVER ASSY GP			1
49	N/A	35L7VDLS001	L7VDQ-4 LCD COVER SUB ASSY GP			1
50	N/A	26L7VDSA001	L7VDQ-4 STAND ASSY GP			1
51	N/A	37L7VDSU005	L7VDQ-4 STAND SUB ASSY GP			1
52	N/A	27L7VDCS009	L7VDQ-4 CHASSIS ASSY GP			1
53	N/A	3FL7VDHS005	L7VDQ-4 HINGE COVER SUB ASSY GP			1
54	M-MS-0808-9815	GAL9V002014	RUBBER PLUG VESA L9V(GAL9V002,REV3A)GP			4
55	N/A	MM30040BBJ4	SCREW M3.0*4.0-B(NI)GP			4
56	M-CV-0830-2540	EBL7V026016	I/O COVER L7VD(EBL7V026,REV3A)GP			1
57	M-CV-0830-2541	EBL7V025010	STAND COVER R L7VD(EBL7V025,REV3A)GP			1
58	N/A	28L7VDPK006	L7VDQ-4 PACKING ASSY GP			1
59	CB-00002602	DDL7VDPC005	CABLE MB-VGA (15/15P,1.8M)L7VD GP			1
60	P-00000434	HAL7V005018	EPE BAG L7VD(HAL7V005,REV3A)GP			1
61	P-FM-0602-0875	HBL7V007011	END CAP(L) L7VD(HBL7V007,REV3A)GP			1
62	P-FM-0602-0876	HBL7V008018	END CAP(R) L7VD(HBL7V008,REV3A)GP			1
63	M-LB-0813-0747	HCL7V004013	CORE LABEL(HCL7V004,REV3A)GP			1
64	N/A	HCL7VD01012	ID LABEL-L VX724 L7VDA-4(HCL7VD01,R3A)GP			1
65	M-LB-0813-0745	HCL7V002011	SERIAL LEBAL L7V(HCL7V002,REV3A) GP			1
66	M-LB-0813-1042	HCL7V019011	CARTON LABEL L7VC(HCL7V019,REV3B) GP			1
67	P-00002838	HFL7V013015	CARTON VX724 L7VD(HFL7V013,REV3A)			1
68	PL-00005198	JXLM5003011	HANDLE LM5S(JXLM5003,REV 3B) GP			1
69	M-MS-0808-7399	JXL7V003017	LCD FILM L7VC(JXL7V003,REV3B)GP			1
70	M-LB-0813-1043	HCL70021011	HI-POT LABEL L70L(HCL70021,REV3A)GP			1
71	N/A	HFL7V011012	SPACE PLATE L7VD(HFL7V011,REV3A)GP			0.05
72	CB-00003440	DD0L0TTH108	CABLE ASSY L0T MB-DVI(24P,REV2A) GP			1
73	N/A	2AL7VDPTQ04	L7VDQ-4 PANEL KIT ASSY(QDI V11) GP			1
74	E-00006099	AA17EL07195	LCD(TFT) 17" QD17EL07 REV:11 V08" GP			1
75	N/A	AZL7VDBQ106	L7VDQ-4 SW BIOS IMAGE RTD2523(QDI V11)			1
76	DC-00003321	HGL7VD04015	QSG+CD VX724(USA)L7VDQ-5(HGL7VD04,R3A)GP			1
77	M-00002524	HCL9V010019	3MS STICKER VX924 L9VD(HCL9V010,R3A) GP			1
78	A-PC-0106-0224	DM333181G97	POWER CORD 3P 1.8M(USA)V04VS350012180 GP			1
79	N/A	HCW0VA03012	DVI POP STICKER W0VA(HCW0VA03,REV3A) GP			2

8. Exploded Diagram and Spare Parts List



EXPLODED PARTS LIST (VX724-1 for "AUO V.8 (4ms) Panel")

ViewSonic Model Number: VS10049

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-FP-0301-0992	EAL7V019019	Bezel	1
2	C-FP-0301-0994	EAL7V020017	Middle bezel	1
3	PL-BT-0706-0165	EBL7V027012	CONTROL BUTTON L7VD(EBL7V027,REV3A)	1
4	M-MS-0808-9401	EBL7V028019	LENS	1
5	M-MS-0808-9243	FEL7V003019	Logo front -VSC	1
6	M-MS-0808-9402	FEL7V007014	BIRD LOGO L7VD(FEL7V007,REV3A)	1
7	M-BK-0805-0077	FBL7V038014	LCD-BKT-L	1
8	E-00002836	AA000170101	LCD(TFT)17" M170EG01 V.8 SVGA	1
9	M-BK-0805-0078	FBL7V039011	LCD-BKT-R	1
10	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI)	12
11	M-BK-0805-0079	FAL7V014017	PCB-BKT	1
12	B-00002481	AS02B012DA6	ADD/INV,FSP035-1PI01,90~264V REV1A	1
13	B-00002839	29L9I0MB017	M/B ASSY(FOR L7VD REALTEK,RTD2523)AU	1
14	M-MS-0808-9405	FAL7V015013	PCB SHIELDING L7VD(FAL7V015,REV3A)	1
15	M-SCW-0824-6822	MF30070BBJ1	SCREW F3.0*7.0-B (NI)	4
16	M-CV-0830-2542	FBL7V042011	Hinge-L	1
17	M-SCW-0824-6825	MM30040IJ21	Screw M3*4-I	4
18	B-CB-0206-0188	23L7VBB0034	Button /B ass'y	1
19	M-MS-0808-9411	FBL70008014	Lock Metal	1
20	M-CV-0830-2543	EAL7V021013	LCD cover	1
21	M-CV-0830-2540	EBL7V026016	I/O cover	1
22	M-CV-0830-2544	FBL7V043018	Hinge BKT	1
23	M-CV-0830-2545	FBL7V044014	Hinge-R	1
24	M-SCW-0824-6760	MS30060IM18	SCREW F3.0*6-I(NI)	4
25	M-MS-0808-9406	MM40080FL69	Screw M 4.0*8.0-F (BNI , Nylok)	4
26	M-CV-0830-2546	EBL7V024013	Stand cover front	1
27	M-CV-0830-2541	EBL7V025010	Stand cover rear	1
28	M-SCW-0824-6760	MS30060IM18	Screw F3.0*6-I(NI)	2
29	M-CV-0830-2547	EAL7V023016	Stand base	1
30	M-SCW-0824-6824	MM40060FL60	Screw M4.0*6.0-F (BNI, NYLOK)	8
31	M-MS-0808-9403	FBL7V041015	Stand plate	1
32	M-SCW-0824-6822	MF30070BBJ1	Screw F 3.0*7.0-B (NI)	9
33	M-BK-0805-0081	FBL7V040019	Stand BKT	1
34	CB-00002525	DD0L9VLC015	Cable FFC MB / LCD	1
35	M-MS-0808-9398	DDL7VDTH009	Cable Ass'y button / MB	1
36	M-MS-0808-9404	EBL7V029015	WIRE CLAMP	2

EXPLODED PARTS LIST (VX724-1 for "QDI (8ms) Panel")

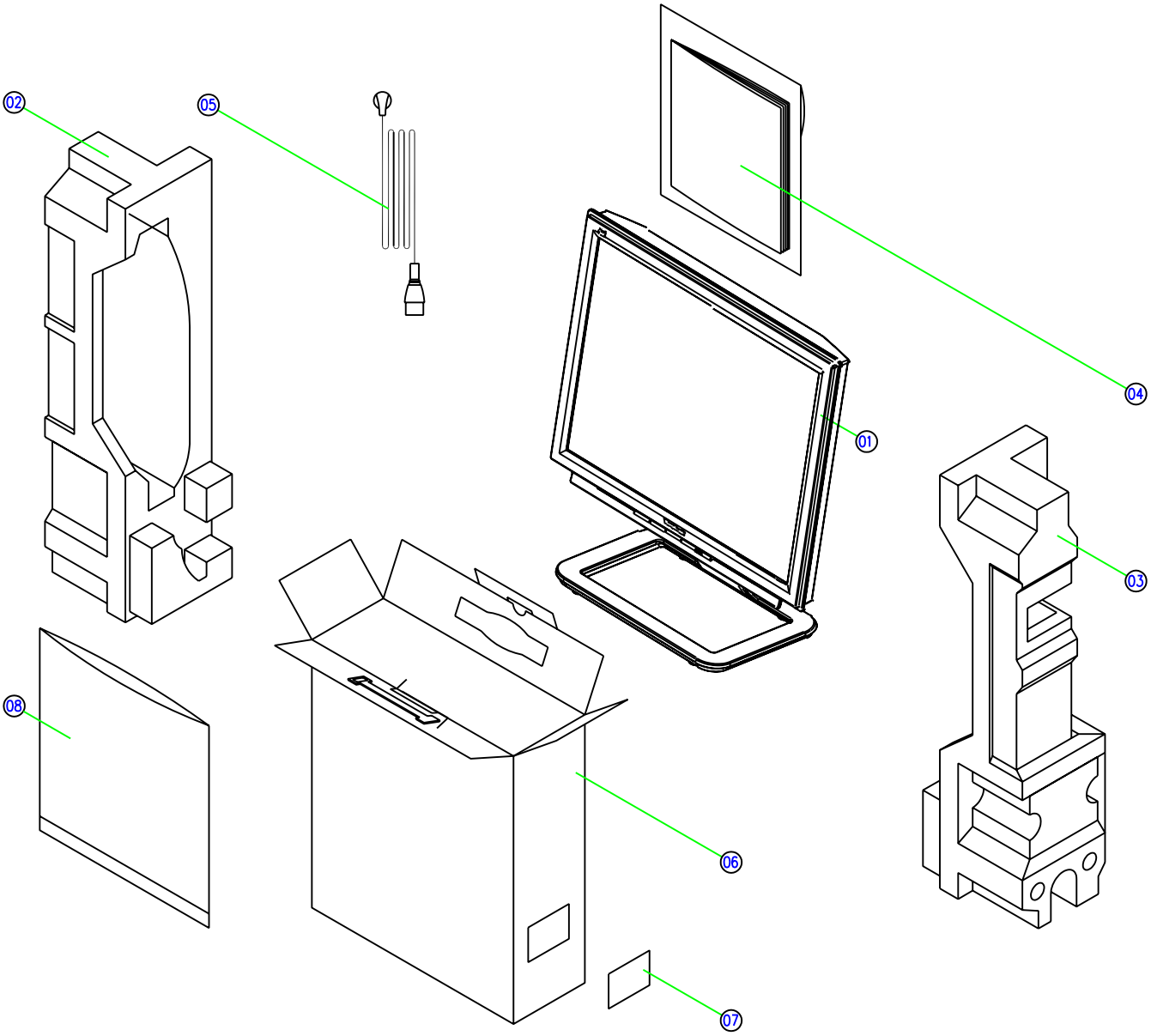
ViewSonic Model Number: VS10049

Rev: 1c

Serial No. Prefix: PSN

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	C-FP-0301-0992	EAL7V019019	Bezel	1
2	C-FP-0301-0994	EAL7V020017	Middle bezel	1
3	PL-BT-0706-0165	EBL7V027012	CONTROL BUTTON L7VD(EBL7V027,REV3A)	1
4	M-MS-0808-9401	EBL7V028019	LENS	1
5	M-MS-0808-9243	FEL7V003019	Logo front -VSC	1
6	M-MS-0808-9402	FEL7V007014	BIRD LOGO L7VD(FEL7V007,REV3A)	1
7	M-BK-0805-0077	FBL7V038014	LCD-BKT-L	1
8	E-00006099	AA17EL07195	LCD(TFT)17" QD17EL07 V11	1
9	M-BK-0805-0078	FBL7V039011	LCD-BKT-R	1
10	M-SCW-0824-0728	MM30050IBJ3	SCREW M3.0*5.0-I(NI)	12
11	M-BK-0805-0079	FAL7V014017	PCB-BKT	1
12	B-00003429	AS02B012D75	ADD/INV,FSP035-1PI01Q,90~264V REV1A	1
13	N/A	29L9I0MB084	M/B ASSY(FOR L7VD REALTEK,RTD2523)QDIV11	1
14	M-MS-0808-9405	FAL7V015013	PCB SHIELDING L7VD(FAL7V015,REV3A)	1
15	HW-00002837	MF30070BBJ1	SCREW F3.0*7.0-B (NI)	4
16	M-CV-0830-2542	FBL7V042011	Hinge-L	1
17	M-SCW-0824-6825	MM30040IJ21	Screw M3*4-I (BNI)	4
18	B-CB-0206-0188	23L7VBB0034	Button /B ass'y	1
19	M-MS-0808-9411	FBL70008014	Lock Metal	1
20	M-CV-0830-2543	EAL7V021013	LCD cover	1
21	M-CV-0830-2540	EBL7V026016	I/O cover	1
22	M-CV-0830-2544	FBL7V043018	Hinge BKT	1
23	M-CV-0830-2545	FBL7V044014	Hinge-R	1
24	M-SCW-0824-6760	MS30060IM18	SCREW F3.0*6-I(NI)	4
25	M-MS-0808-9406	MM40080FL69	Screw M 4.0*8.0-F (BNI , Nylok)	4
26	M-CV-0830-2546	EBL7V024013	Stand cover front	1
27	M-CV-0830-2541	EBL7V025010	Stand cover rear	1
28	M-SCW-0824-6760	MS30060IM18	Screw F3.0*6-I(NI)	2
29	M-CV-0830-2547	EAL7V023016	Stand base	1
30	M-SCW-0824-6824	MM40060FL60	Screw M4.0*6.0-F (BNI, NYLOK)	8
31	M-MS-0808-9403	FBL7V041015	Stand plate	1
32	HW-00002837	MF30070BBJ1	Screw F 3.0*7.0-B (NI)	9
33	M-BK-0805-0081	FBL7V040019	Stand BKT	1
34	CB-00002525	DD0L9VLC015	Cable MB - LCD(30P, 140mm) L9V-5, GP	1
35	M-MS-0808-9398	DDL7VDTH009	Cable Ass'y button / MB	1
36	M-MS-0808-9404	EBL7V029015	WIRE CLAMP	2

Packing for shipping



PACKING PART LIST (VX724-1)

ViewSonic Model Number: VS10049

Rev: 1a

Item	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	#N/A	1L7VDZAVS81	VX724 unit	1
2	P-FM-0602-0875	HBL7V007011	END CAP(L)	1
3	P-FM-0602-0876	HBL7V008018	END CAP(R)	1
4	DC-00002835	HGL7V021019	User manual & CD	1
5	A-PC-0106-0224	DM333181G97	Power cord 3P 1.8M	1
6	P-00002838	HFL7V013015	Carton	1
7	M-LB-0813-1042	HCL7V019011	Carton label	1
8	P-00000434	HAL7V005018	EPE bag	1

PACKING PART LIST (VX724-1)

ViewSonic Model Number: VS10049

Rev: 1c

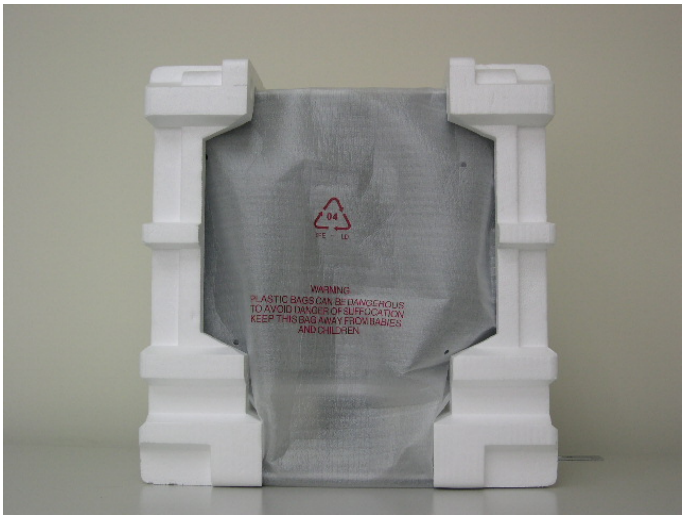
Item	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	N/A	1L7VDZQVS88	VX724 unit	1
2	P-FM-0602-0875	HBL7V007011	END CAP(L)	1
3	P-FM-0602-0876	HBL7V008018	END CAP(R)	1
4	DC-00003321	HGL7VD04015	User manual & CD	1
5	A-PC-0106-0224	DM333181G97	Power cord 3P 1.8M	1
6	P-00002838	HFL7V013015	Carton	1
7	M-LB-0813-1042	HCL7V019011	Carton label	1
8	P-00000434	HAL7V005018	EPE bag	1

Packing procedure

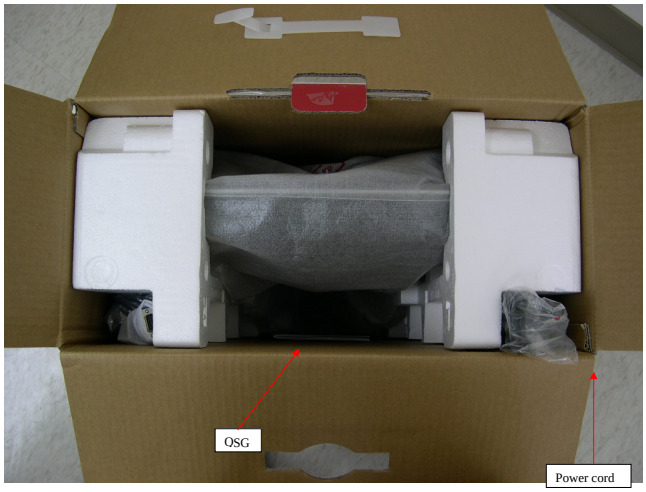
1. Apply protective film to the display surface.

2. Put the monitor in EPE bag and seal the bag with tape.

3. Fit the cushions onto the monitor.



4. Put the monitor into the carton and put all the accessories into the carton. Then close the carton.

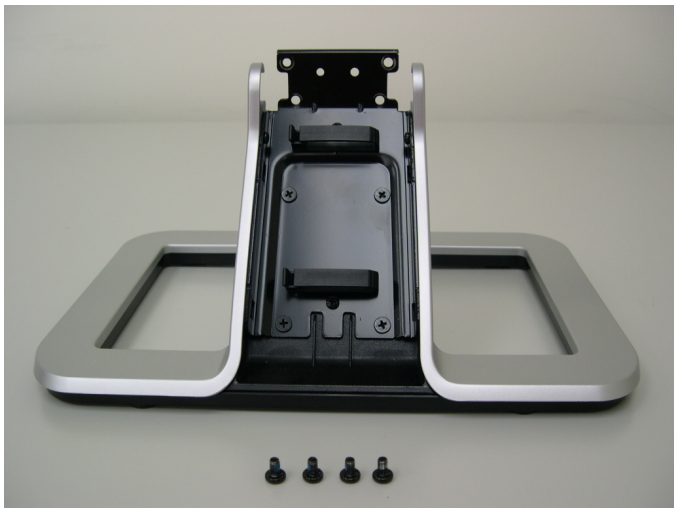


Disassembling the monitor

1. Turn the monitor to face the back and remove the I/O cover.

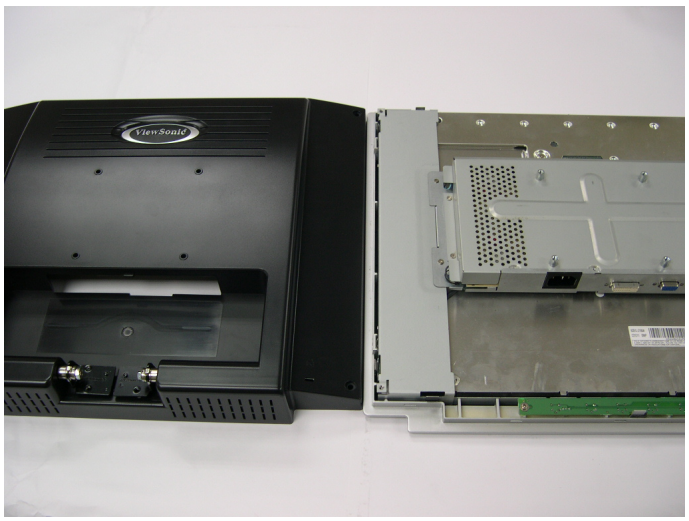
2. Remove the stand back cover.

3. Remove the four black hinge screws and separate the stand and head pieces.



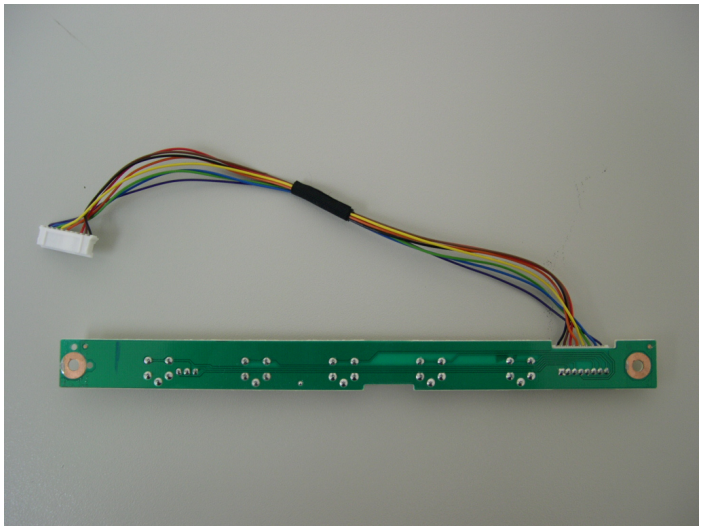
4. Place the monitor face-down on a soft, flat, stable surface.

5. Separate the back cover and the front bezel.

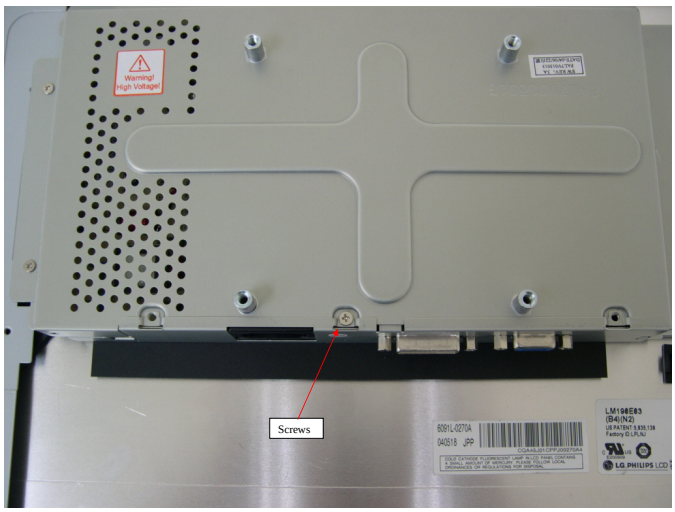


6. Remove the screws that fix the button board (B/B) and pull the cable out from the connector on the main board (M/B).

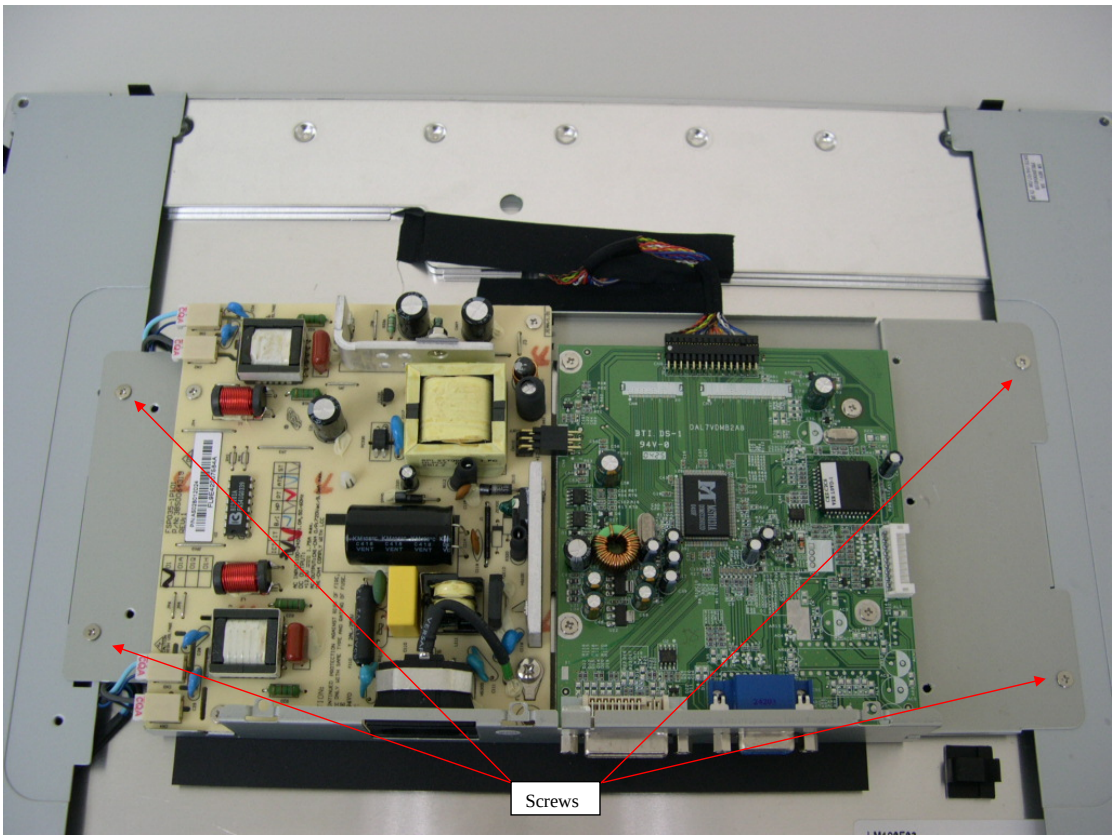
7. Remove the B/B.



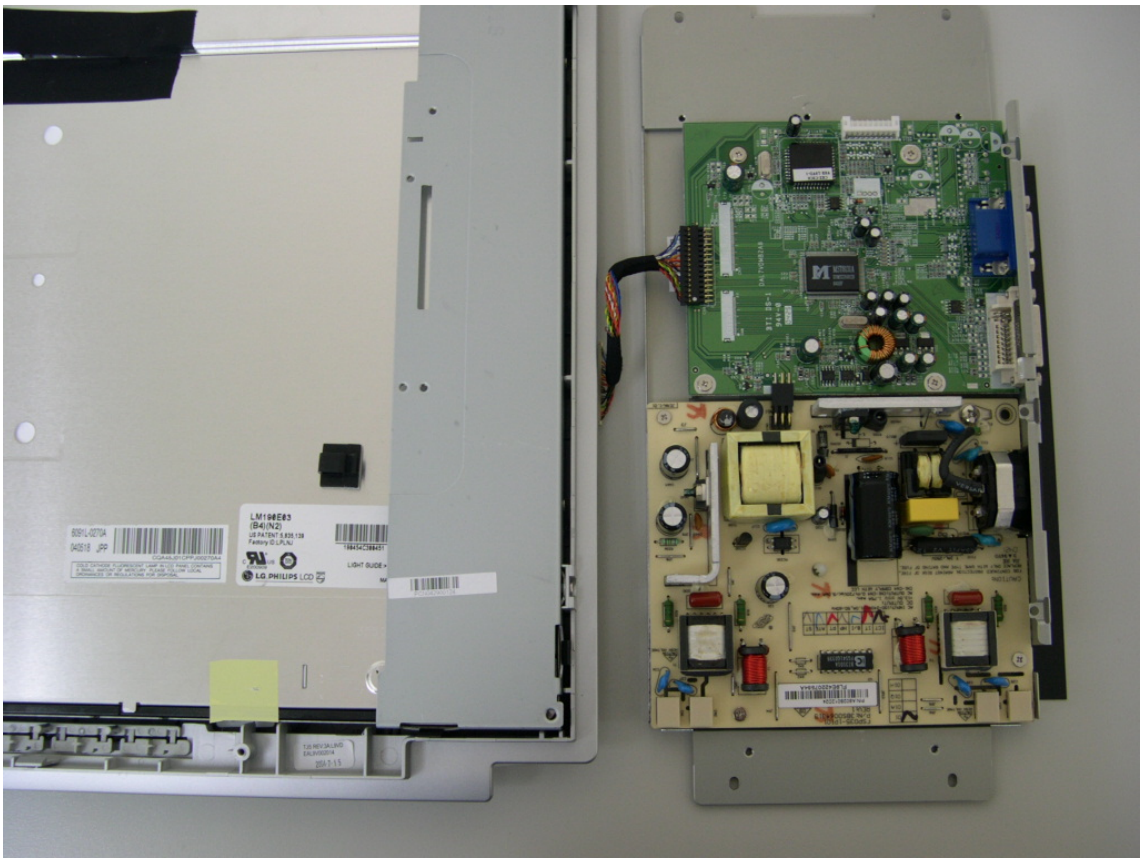
8. Remove the screws on the PCB shield; remove the PCB shield.



9. Remove the MB-LCD connector and loosen the four screws on the PCB holder.



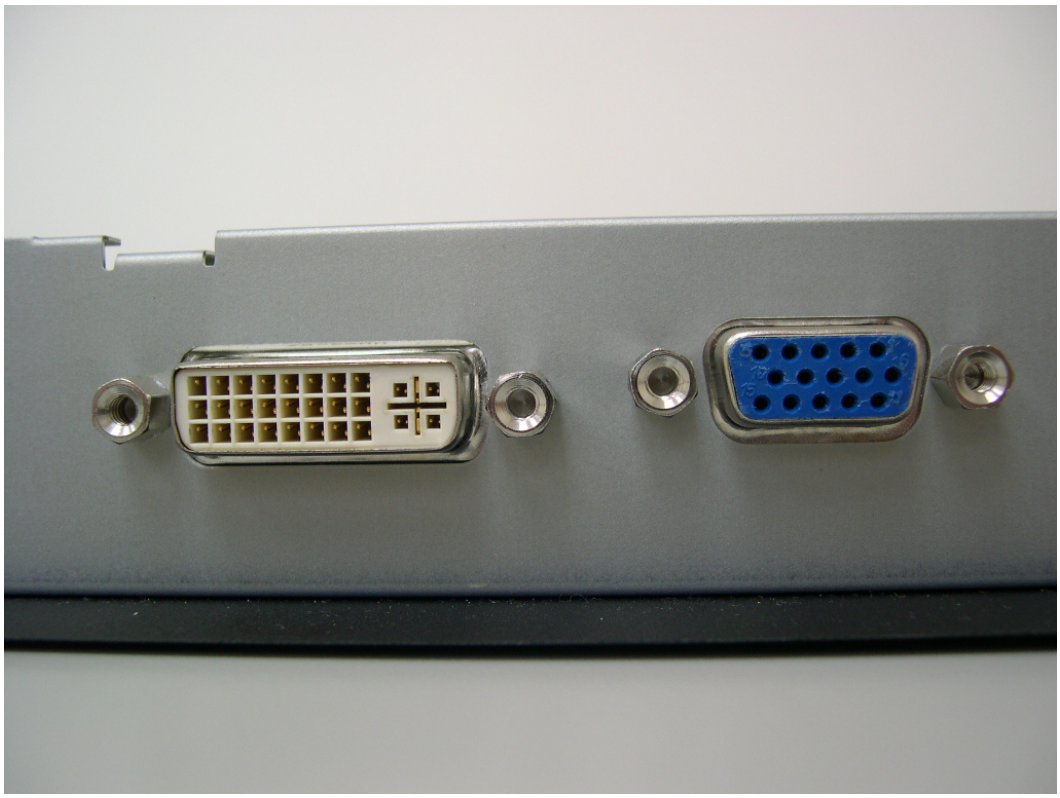
10. Separate the PCB holder from the panel.



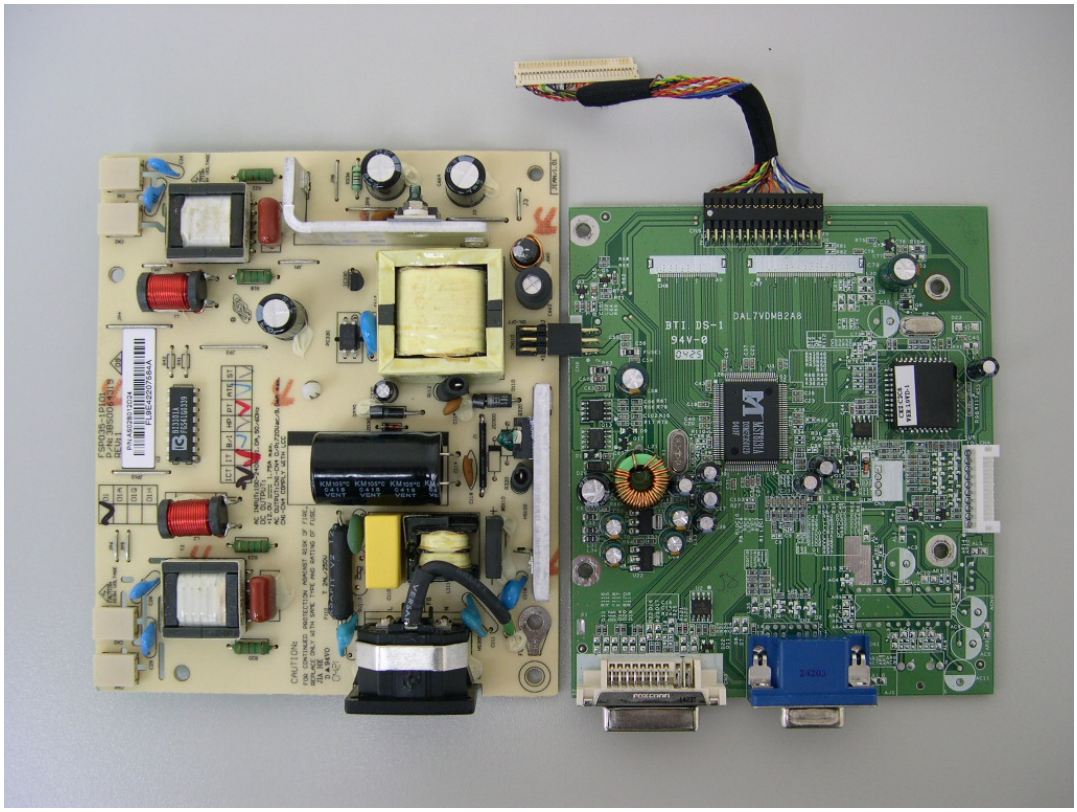
11. Loosen the four screws on the sides of the panel.

12. Remove the front bezel and panel.

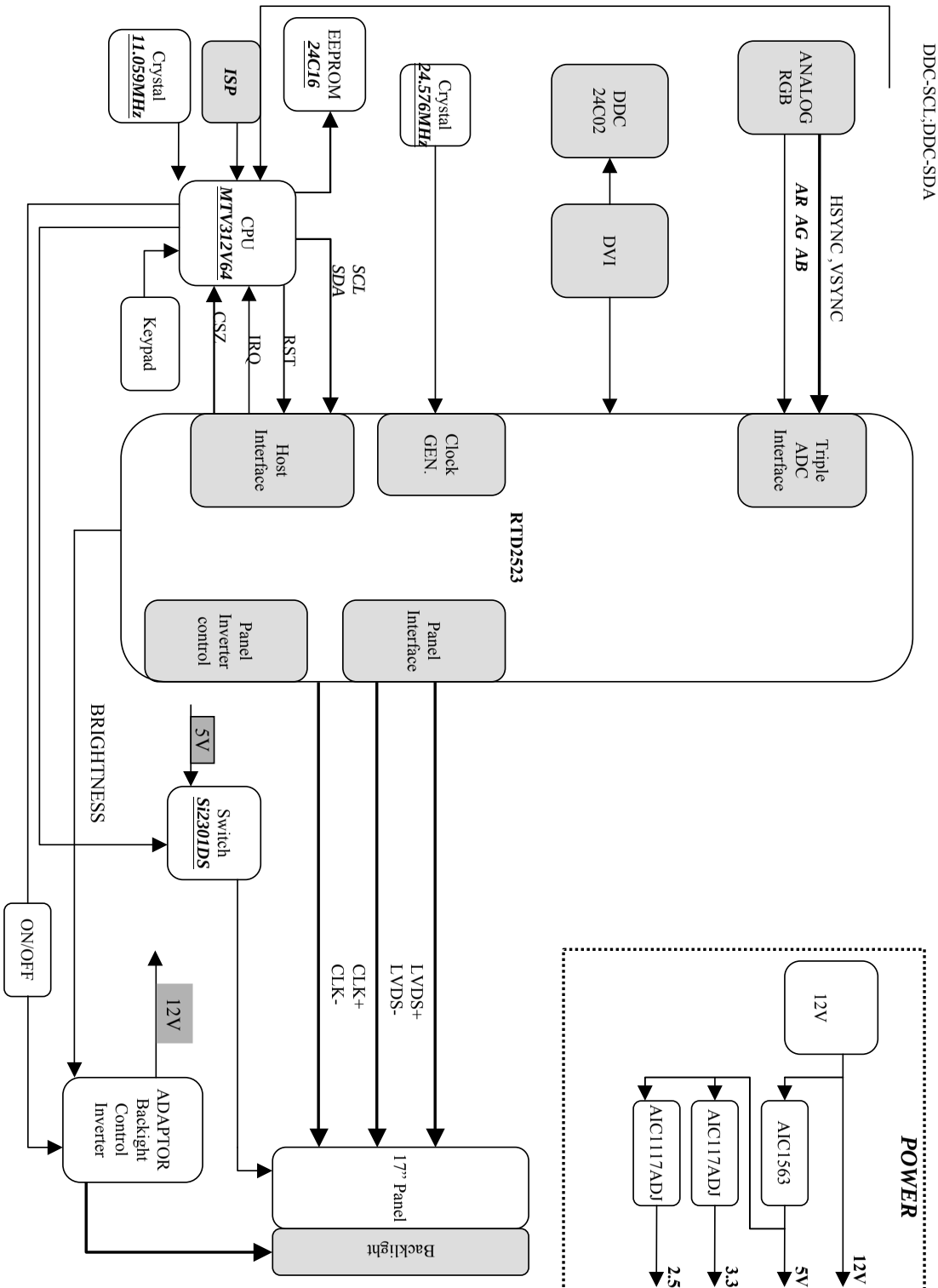
13. Remove the four hexagon screws beside the DVI & D-SUB connectors.



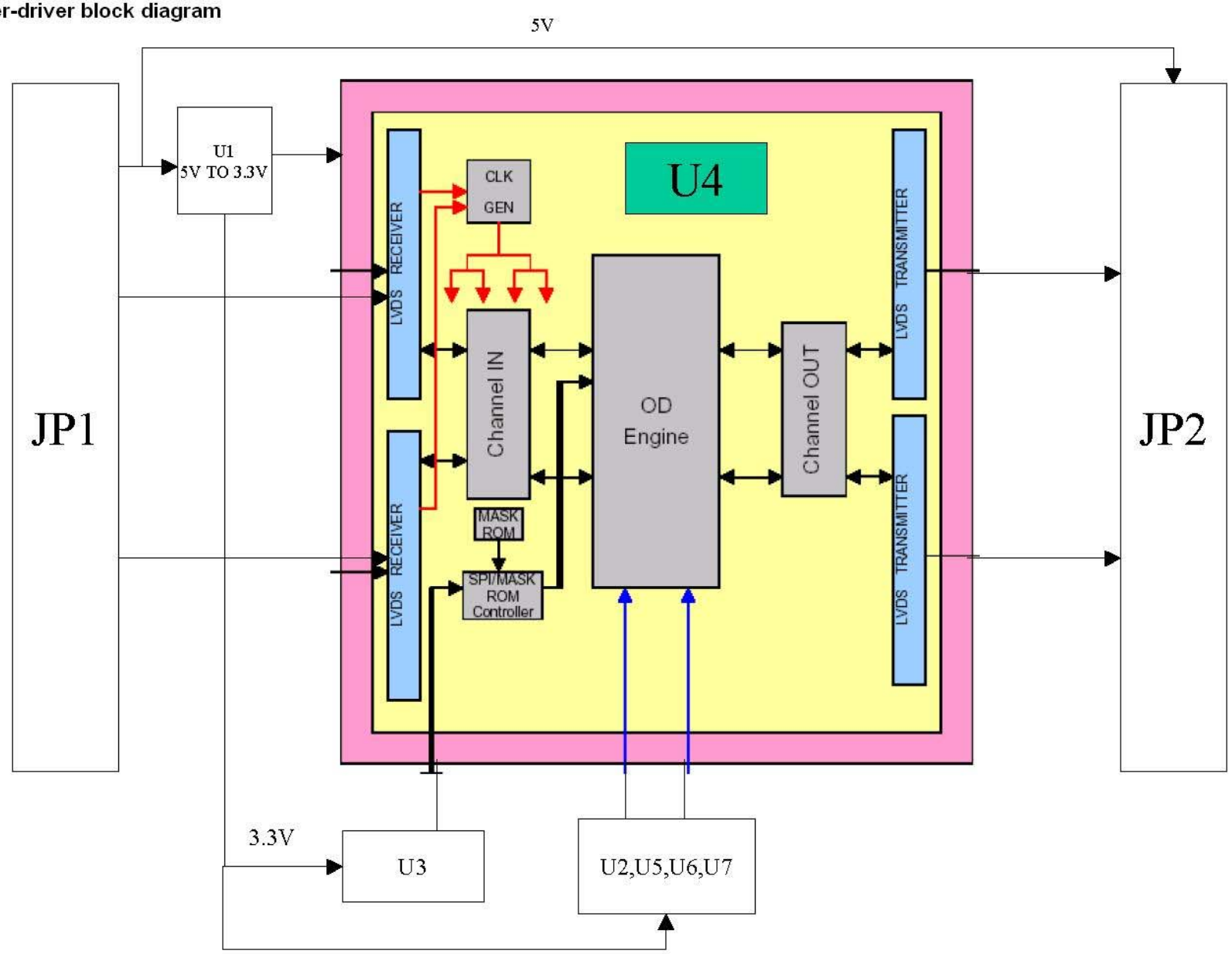
14. Remove the screws that fix the power board and main board.

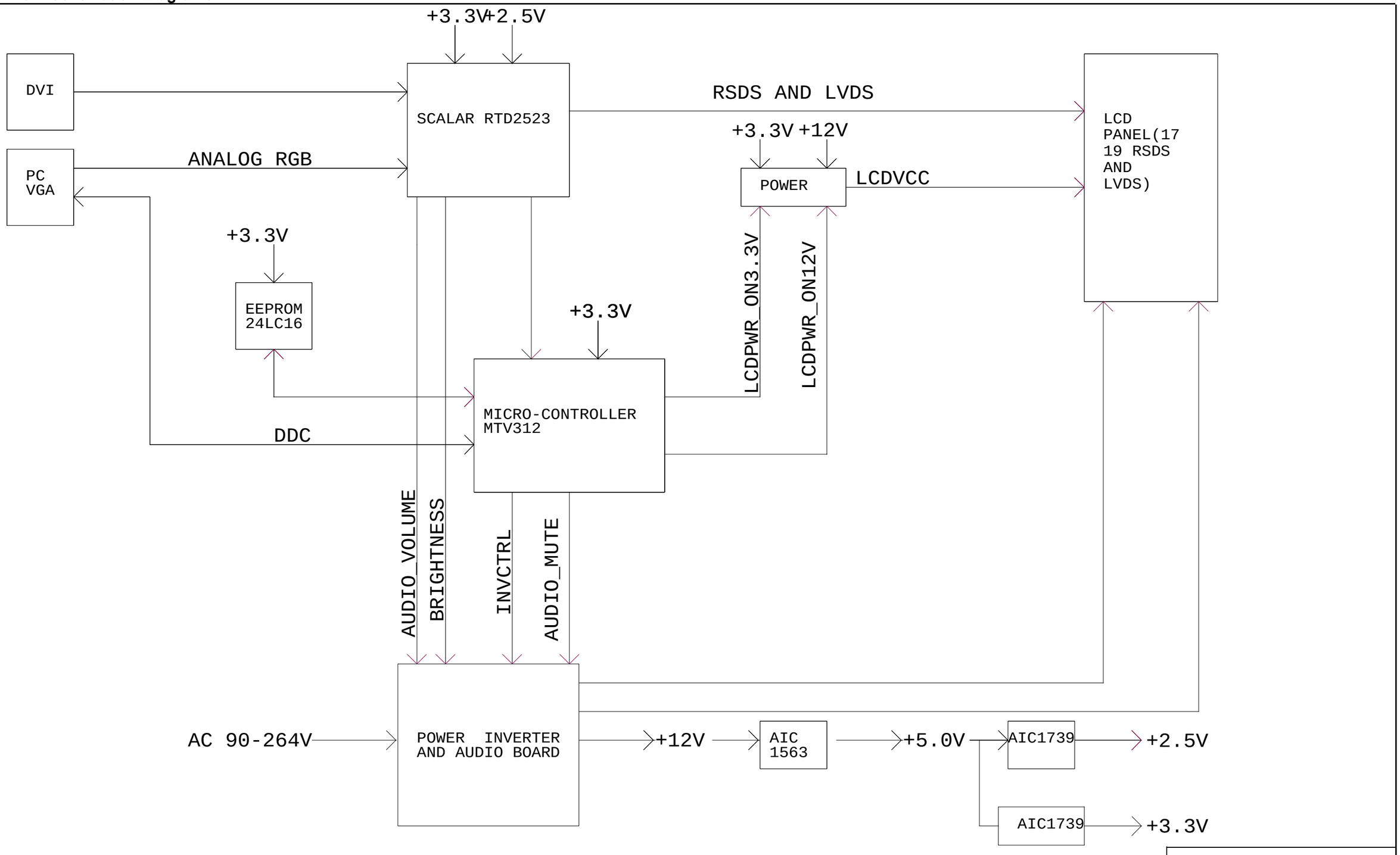


9. Block Diagram

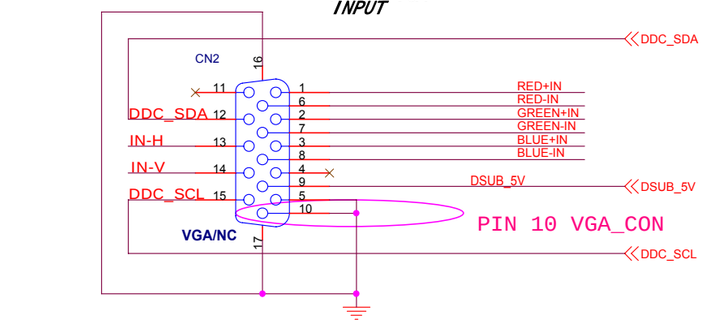


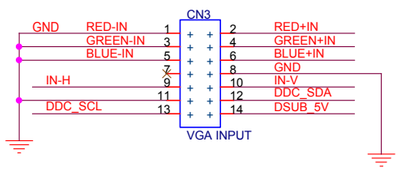
Over-driver block diagram

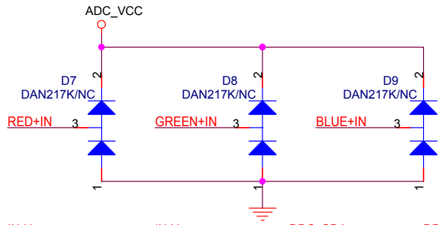



+3.3V
+2.5V
DVI
PC
VGA
ANALOG RGB
SCALAR RTD2523
RSDS AND LVDS
LCD
PANEL(17
19 RSDS
AND
LVDS)
+3.3V
+12V
POWER
LCDVCC
+3.3V
EEPROM
24LC16
+3.3V
LCDPWR_ON3.3V
LCDPWR_ON12V
MICRO-CONTROLLER
MTV312
DDC
AUDIO_VOLUME
BRIGHTNESS
INVCTRL
AUDIO_MUTE
AC 90-264V
POWER INVERTER
AND AUDIO BOARD
+12V
AIC
1563
+5.0V
AIC1739
+2.5V
AIC1739
+3.3V
ViewSonic Corporation
Model
Title
BLOCK DIAGRAM
Date
Rev:

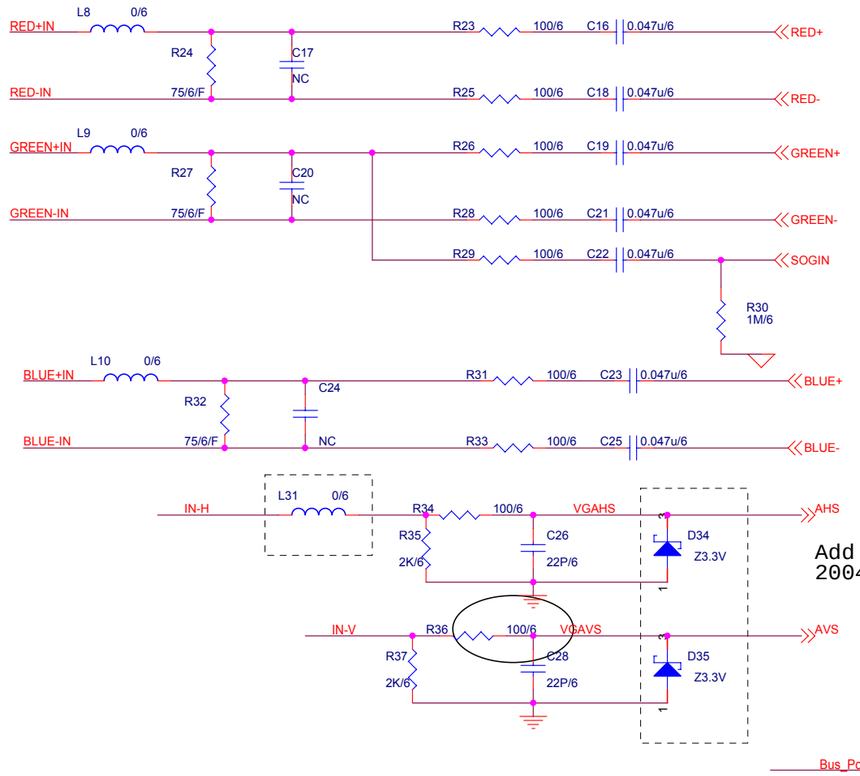
PAGE1 VGA INPUT





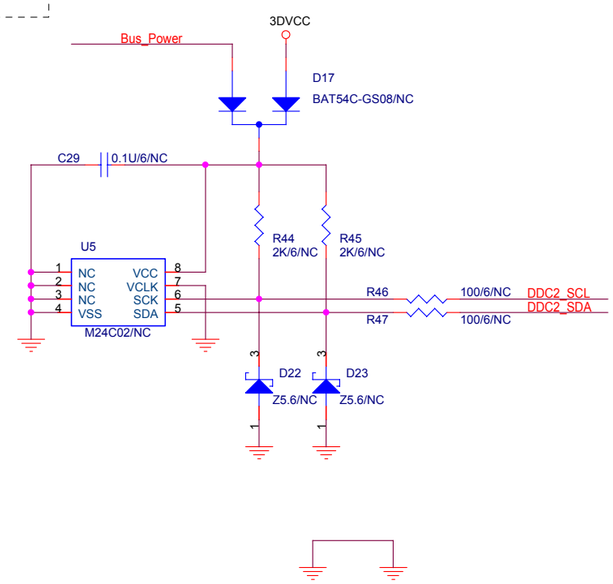


DEL D29 2004/6/17

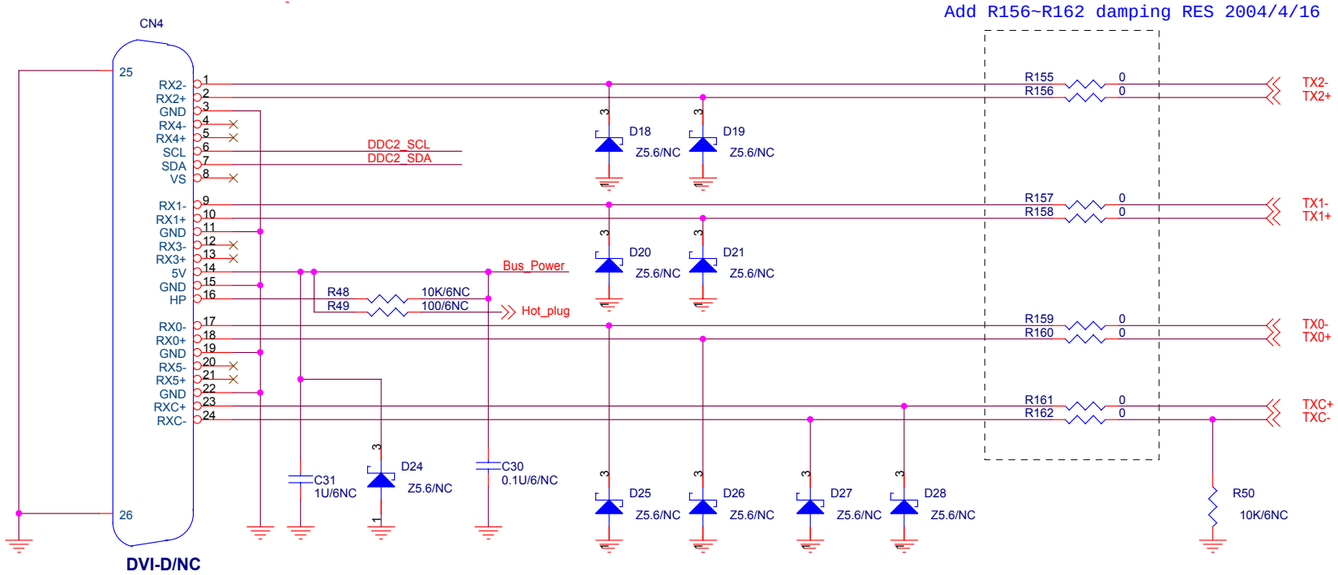


DEL L11,C32,U6,R51,R52 2004/6/17

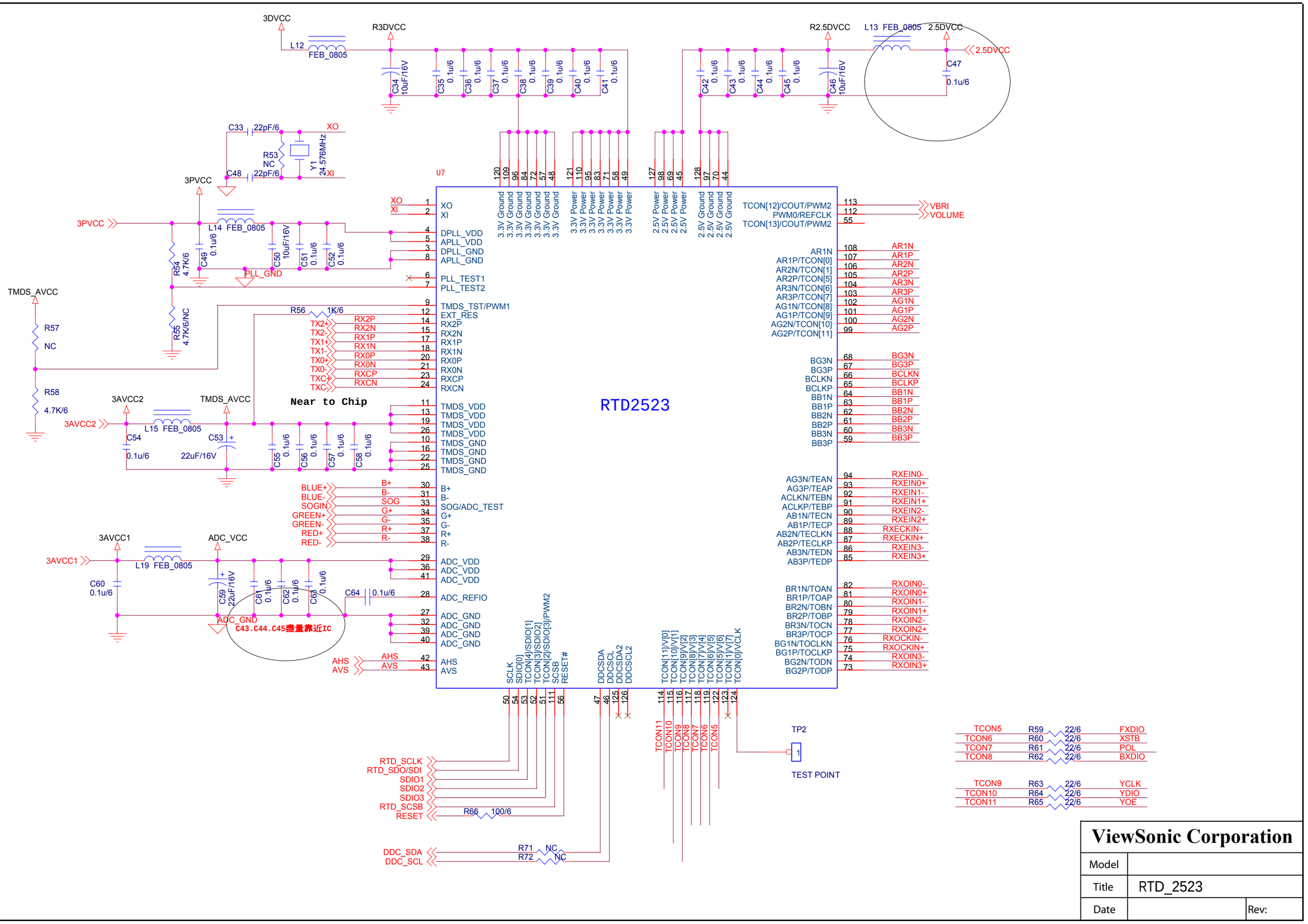
Add D34,D35,L31
2004/6/17



Add R156~R162 damping RES 2004/4/16



ViewSonic Corporation		
Model		
Title	VGA AND DVI INPUT	
Date		Rev:


RTD2523
U7
Near to Chip
C43.C44.C45盡量靠近IC
TEST POINT
ViewSonic Corporation
Model
Title RTD_2523
Date
Rev:

Reset circuit

VCPU
D32
NC/ 1N4148
R165
NC/100K/6
Q20
NC/2N3906
C103
NC/1U/16V
3AVCC1
R147
4.7K/6
RESET
R166
0/6
D33
NC/DAN202U
C86
NC/1U/16V
R106
NC/82K/6

Add Q20,R165,R166,C103,D32,D33
2004/6/16

3DVCC
R78
10K/6
R79
10K/6
LED_G
R82
4.7K/6
Q12
2N3906
LED_R
R93
4.7K/6
Q13
2N3906
B
C
E

3DVCC
R87 33K/6
R88 33K/6
R89 33K/6
R90 33K/6
R91 33K/6
R84 33K/6
R85 33K/6
MENU
SEL
PWR
DOWN
UP
RIGHT
LEFT
Junction from
A change to B
C76 0.1U/6
C77 0.1U/6
C78 0.1U/6
C79 0.1U/6
C80 0.1U/6
C81 0.1U/6
C82 0.1U/6
R95 1K/6
R96 1K/6
R97 1K/6
R98 1K/6
R99 1K/6
R100 1K/6
R101 1K/6
R102 220/6
R103 220/6
CN6
10 9 8 7 6 5 4 3 2 1
4501-10-10P-R

less R94 to CN6 pin 11
R101,R103 net swap

2.0mm pitch
90° E&T
4607-11Pin
TO BUTTON BOARD

VCPU
C84
22uF/16V
C85
0.1u/6

VCPU
R163
4.7K/6

C87 10pF/6
C88 10pF/6
Y2
11.0592MHz

I1
MTV312M64
NC NC VDD3 VCC HSYNC VSYNC
6 5 4 8 43 44
X1 12
X2 11
RESET 7
INT0/P3.2 19
ISCL/P3.5/T1 14
ISDA/P3.4/T0 13
P6.0/AD0 27
P6.1/AD1 26
P6.2 16
P6.3 9
P6.4 30
P6.5 31
P6.6 32
P6.7 33
VSS 10
P5.0 3
P5.1 2
P5.2 1
P5.3 42
P5.4 41
P5.5 40
P5.6 34
DA8/HLFHO 39
DA9/HALFV 38
P1.0 17
P1.1 18
P1.2 20
P1.3 21
P1.4 22
P1.5 23
P1.6 24
P1.7 25
DA7 35
P4.0 36
P4.1 37
P4.2 15
P3.1/TXD 28
P3.0/RXD 29

R164 22
MENU
SEL
PWR
UP
DOWN
RIGHT
LEFT
AVS
R39 4.7K/6
R40 4.7K/6
VRMT

VCPU
R110 4.7K/6
R111 4.7K/6
R112 NC
R113 NC
R114 4.7K/6
R115 4.7K/6
R116 4.7K/6
R120 NC
PANEL_PW3
SDIO1
SDIO2
SDIO3
RTD_SDO/SDI
RTD_SCLK
RTD_SCSB

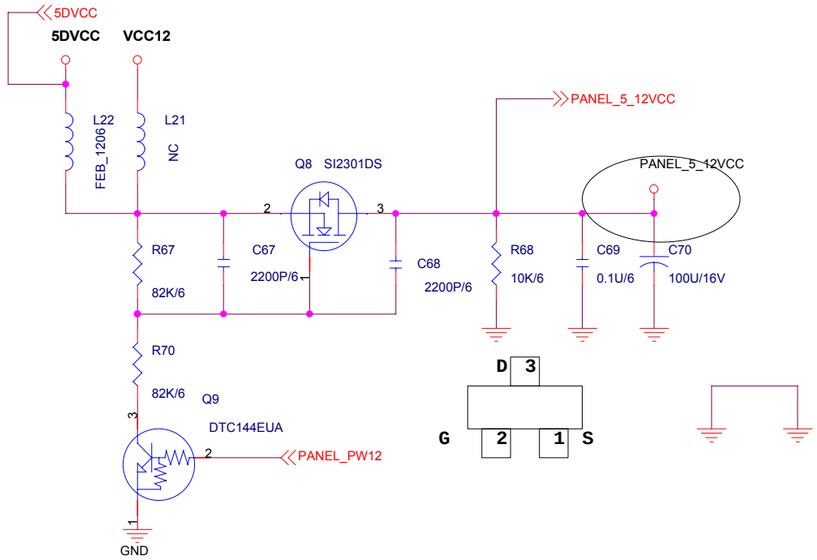
VCPU
C75
0.1U/6
U8
A0 A1 A2 VSS
VCC WP SCK SI
1 2 3 4 8 7 6 5
24LC16
PARAMETER
EEPROM
R80 2K/6
R81 2K/6

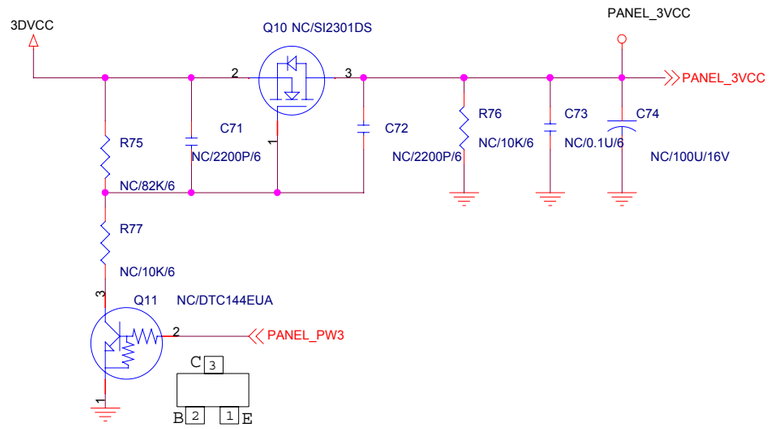
VCPU
R142 NC
R83 100/6
R92 100/6
IICSCL
IICSDA
LED_R
LED_G
PANEL_PW12
MUTE
Hot_Plug
STBY
PWR_SEL

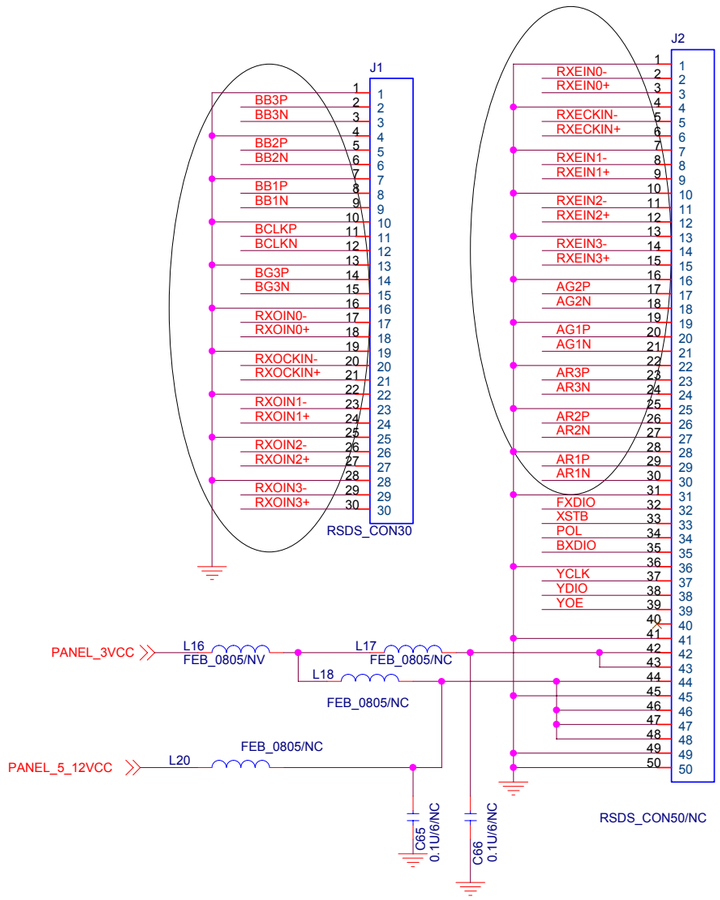
VCC12
R41
6.8K/6
R38
2K/6

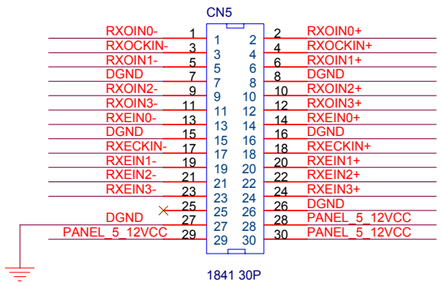
R124 100/6
R125 100/6
VCPU
TxD
RxD
DDC_SDA
DDC_SCL
R109 4.7K/6
R108 4.7K/6
JP1
1 2 3 4
5DVCC
HEADER 4

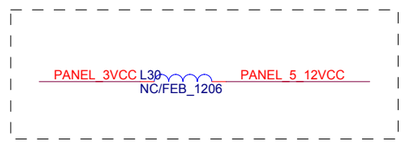
ViewSonic Corporation		
Model		
Title	MCU & BUTTON	
Date		Rev:





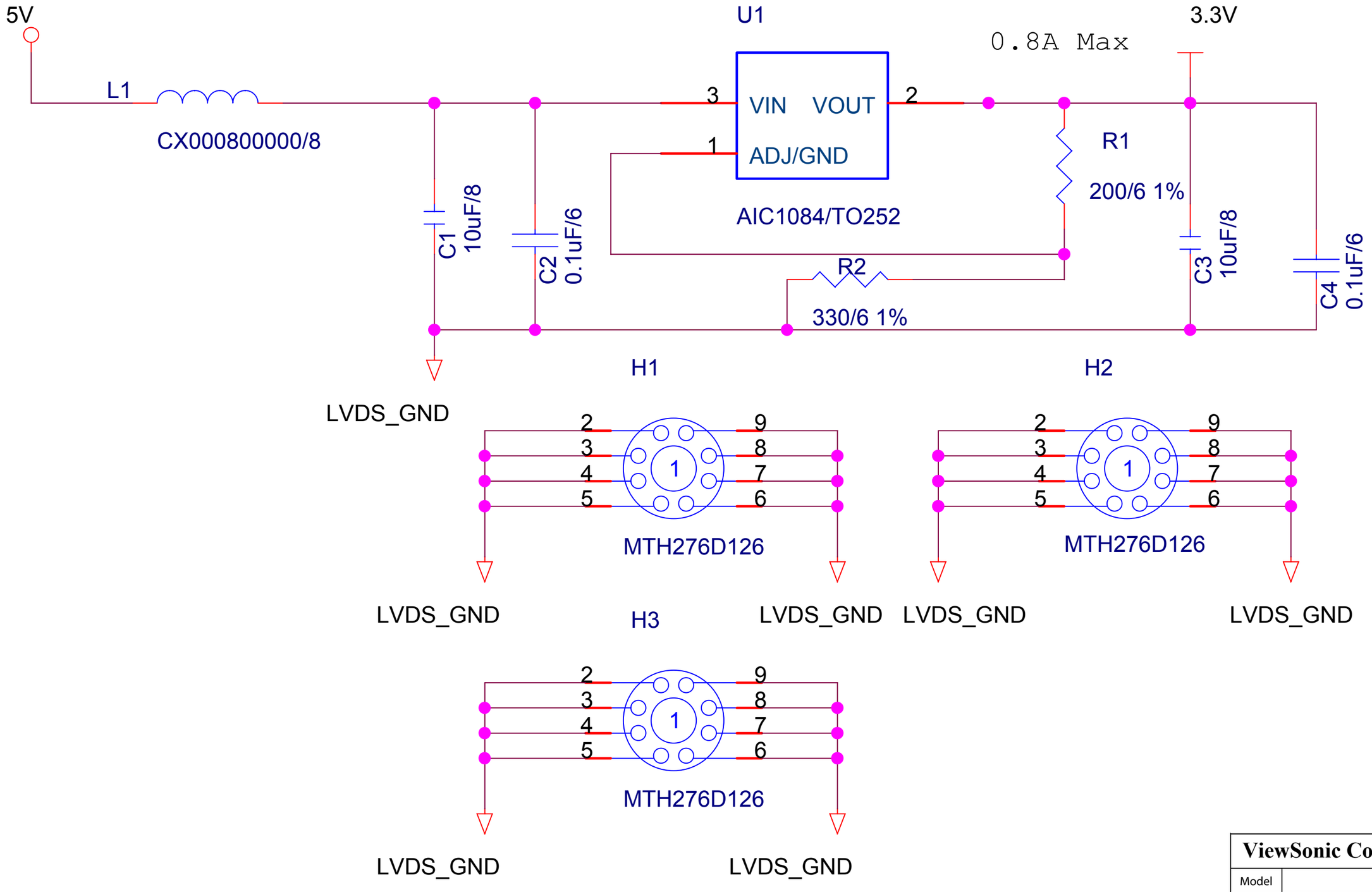




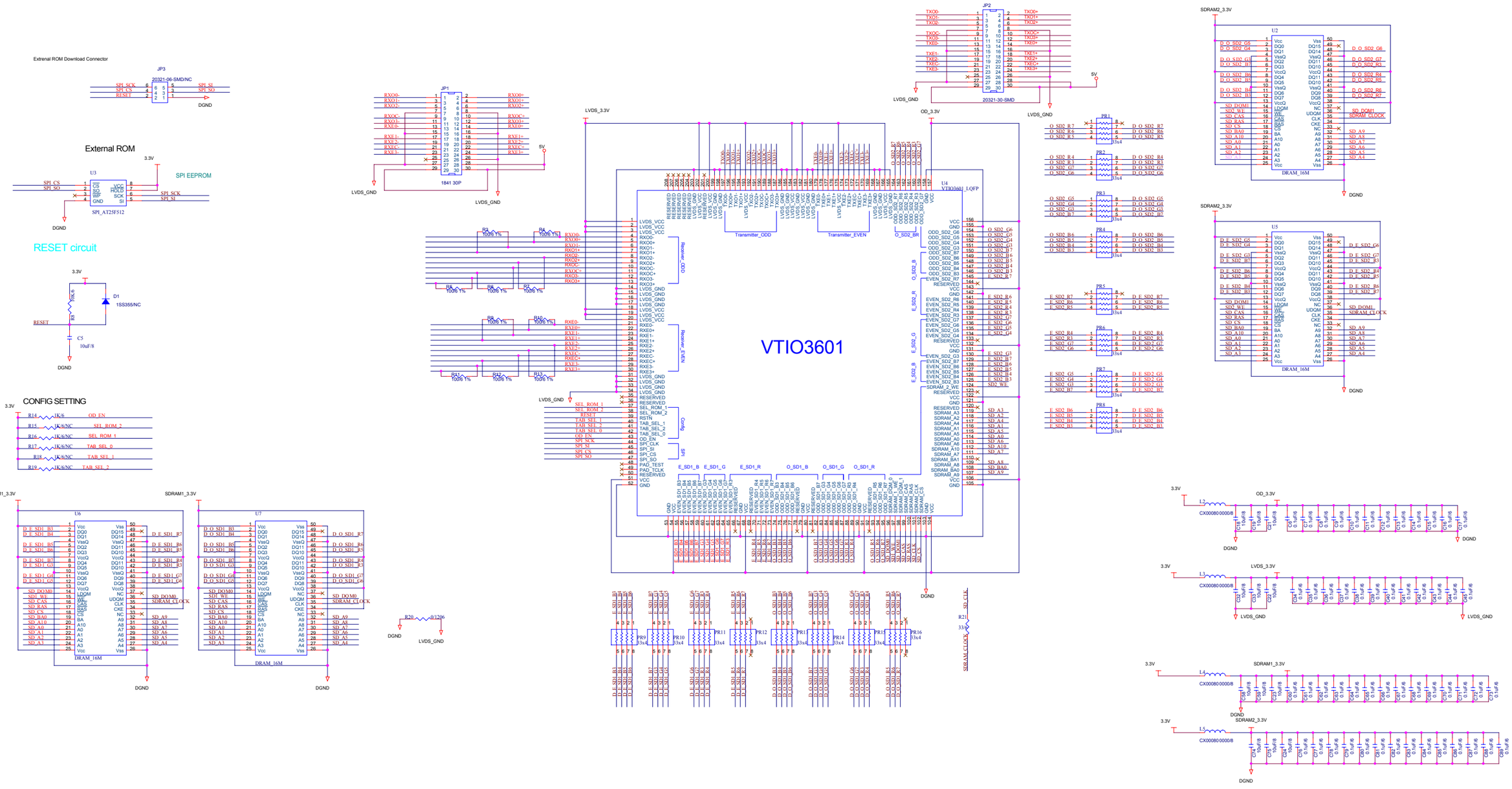


If panel is 3.3V LVDS IF, L30 must add the part 2004/4/14

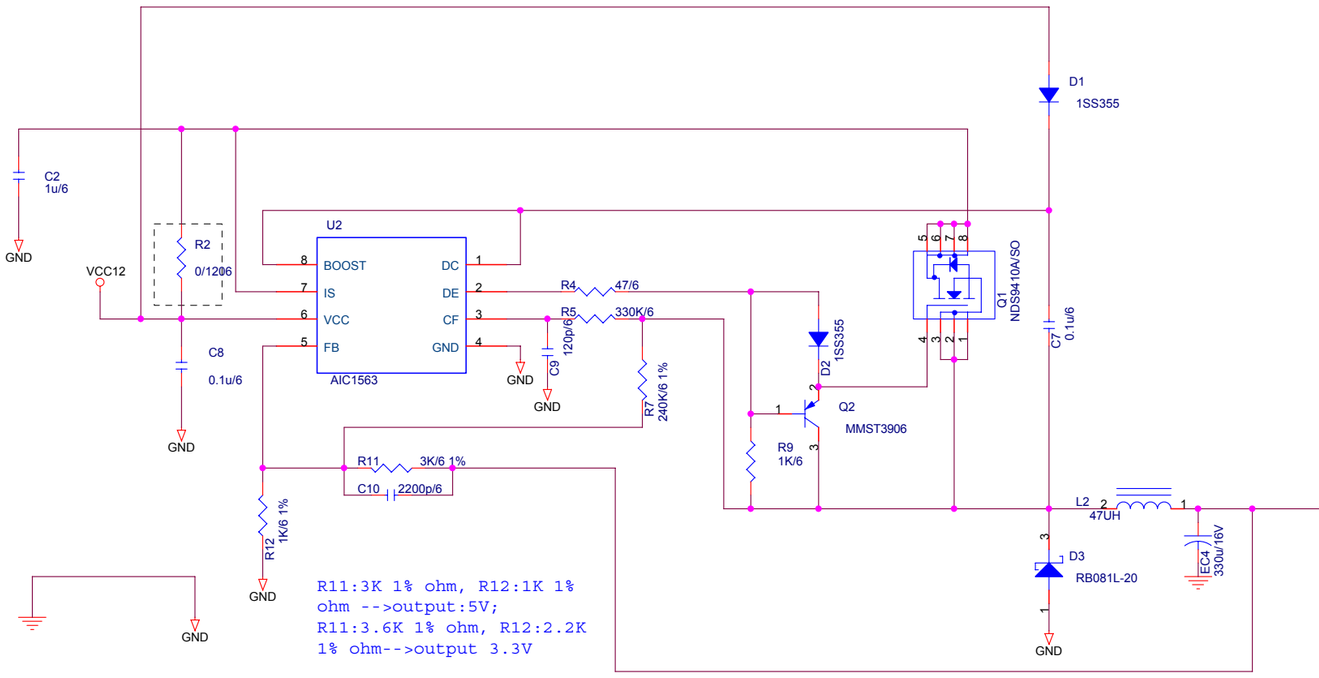
ViewSonic Corporation		
Model		
Title	PANEL INTERFACE	
Date		Rev:

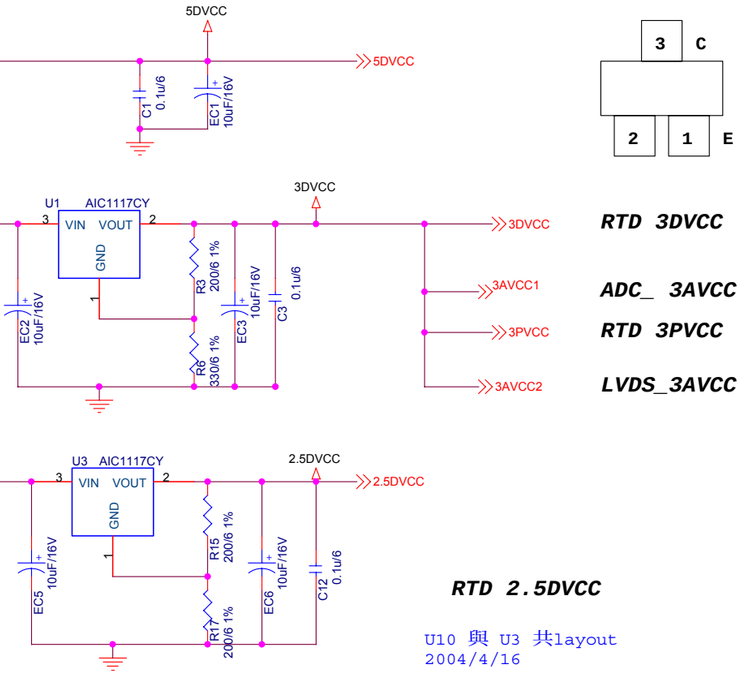


ViewSonic Corporation		
Model		
Title		
Date		Rev:



ViewSonic Corporation		
Model		
Title		
Date		Rev:



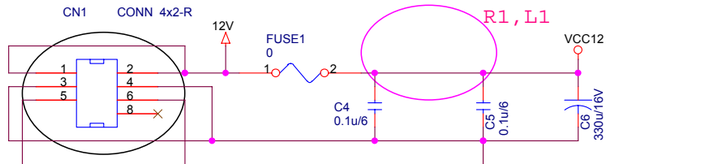


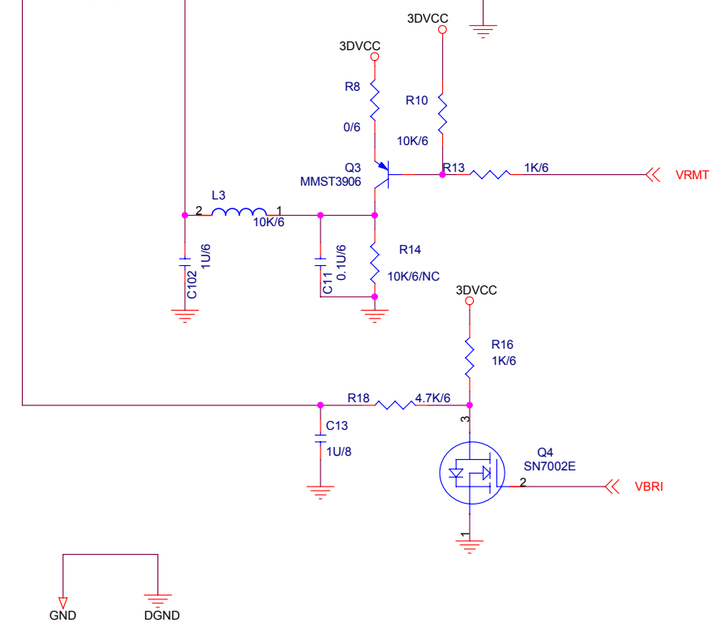
RTD 3DVCC

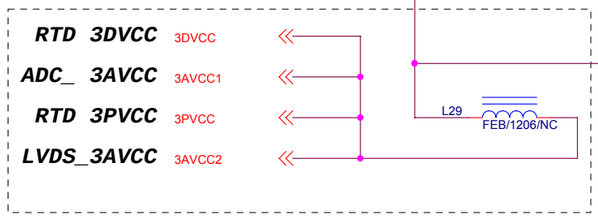
ADC_ 3AVCC

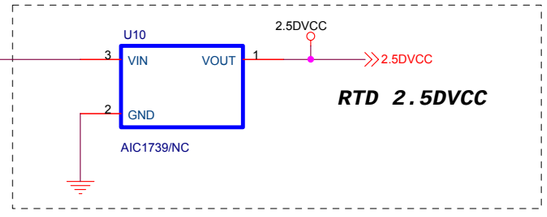
RTD 3PVCC

LVDS_3AVCC



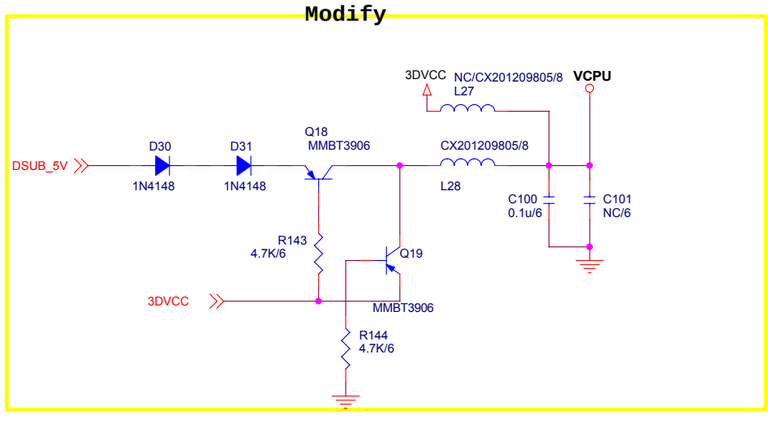






3.3V-->2.5V regulator for 3.3V system power, no 5V 2004/4/14

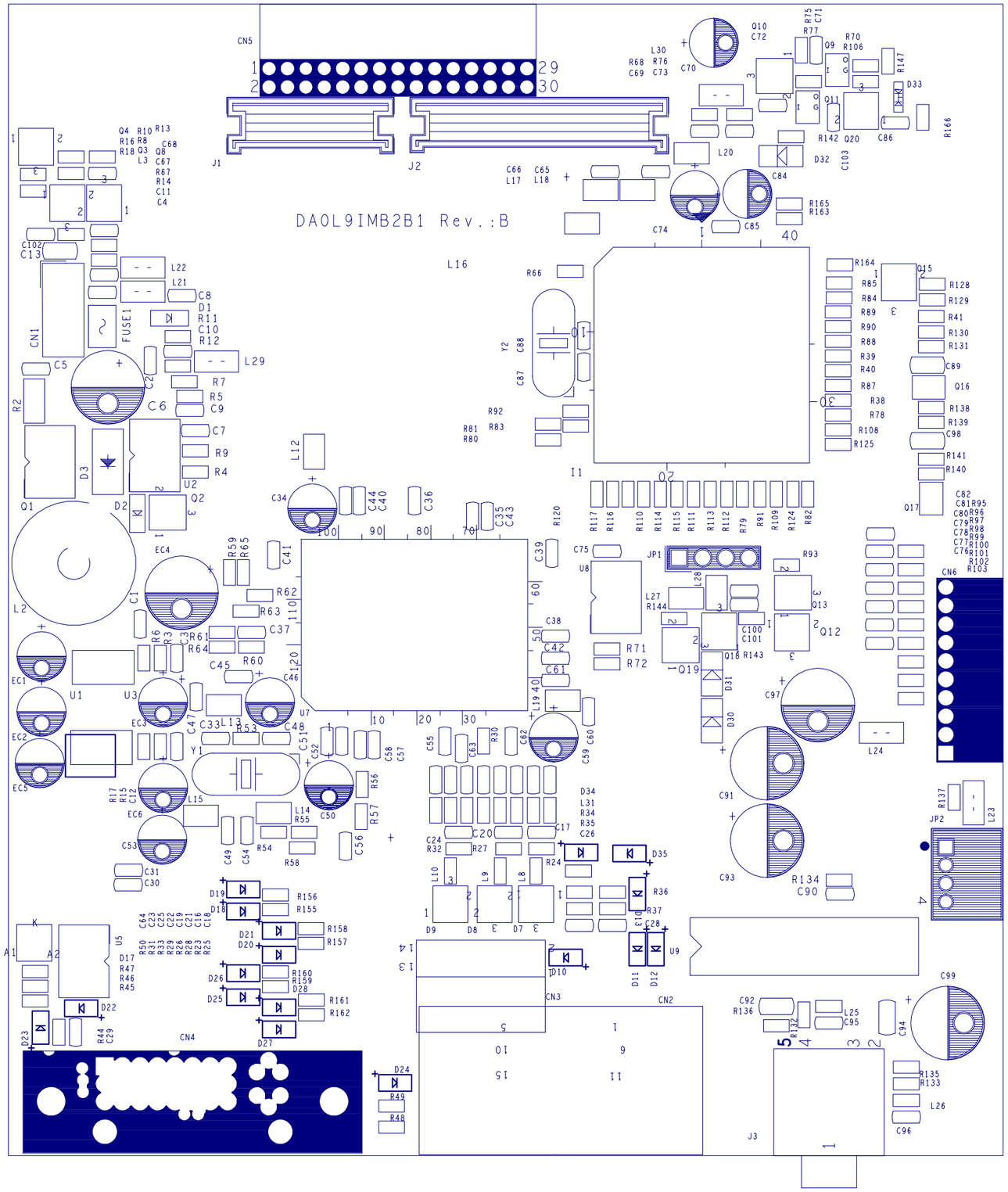
Modify



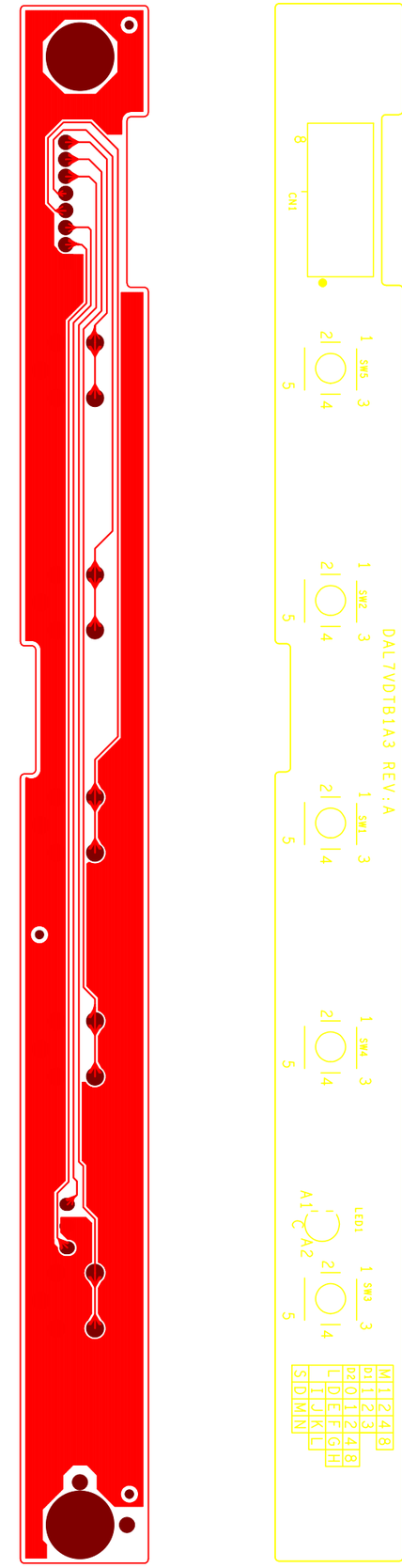
ViewSonic Corporation		
Model		
Title	POWER	
Date		Rev:

11. PCB Layout Diagrams

Main Board



Control Board



* Reader's Response*

Dear Readers:

Thank you in advance for your feedback on our Service Manual, which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A. What do you think about the content of this Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions and Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjustment Procedure				
6. Troubleshooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Exploded Parts List				
9. Block Diagrams				
10. Schematic Diagrams				
11.PCB Layout Diagrams				

B. Are you satisfied with this Service Manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C. Do you have any other opinions or suggestions regarding this service manual?

Reader's basic dada:

Name:		**Title:**	
Company:			
Add:			
Tel:		**Fax:**	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)